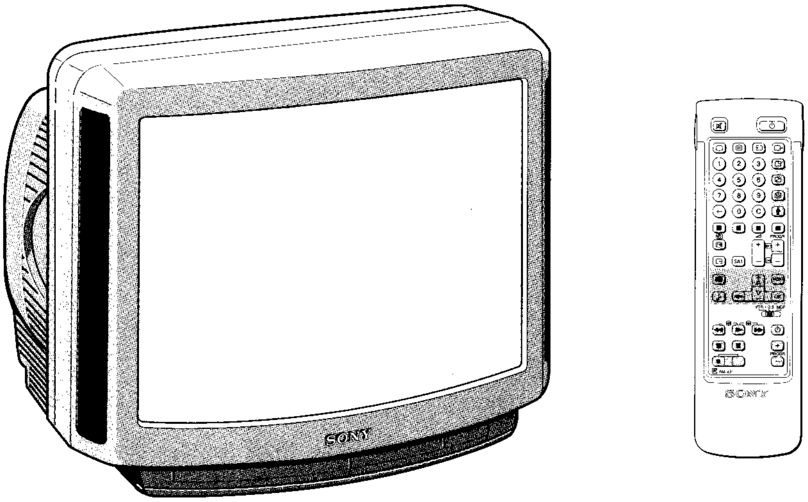
SERVICE MANUAL

AE-3 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-29X2A	RM-831	Italian	SCC-J26F-A	KV-29X2D	RM-831	AEP	SCC-J23F-A
KV-29X2B	RM-831	French	SCC-J27F-A	KV-29X2E	RM-831	Spanish	SCC-J28F-A



TRINITRON® COLOR TV

SONY®

MICROFILM

MC-Service

ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
French	B/G/H, D/K, I, L	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 D/K VHF: R01-R12 UHF: R21-R69 I B21-69 L VHF: F2-F10 UHF: F21-F69 Cable TV: B-Q	SECAM, PAL NTSC 3.58 (video input only) NTSC4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: B-Q UHF: S21-S41	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
Spanish	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 SECAM D/K VHF: R01-R12 UHF: R21-R60	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)

MODEL	29X2A	29X2B	29X2D	29X2E
Power Consumption	133W	142W	140W	142W

SPECIFICATIONS

Picture Tube	Super Trinitron Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110° -deflection

Rear/Front Terminals

[REAR]

-⊡ 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio / video signals
- Inputs for RGB
- Outputs of TV audio and video signals

⊖→ 2/ -Ⓢ 2, 21-pin Euro connector
- Inputs for audio and video signals
- Inputs for S video
- Outputs for TV audio and video signals (selectable)

-⊕ Audio outputs (variable) - phono jacks

[FRONT]

-⊐ 3 , Video input - phono jack
-⊕ 3 , Audio inputs - phono jacks
-Ⓢ 3 , S video input - 4 pin DIN
∩ Headphonejack - stereo minijack

Sound output	2x30W (music power)
Dimensions	676x557x528 mm approx.
Weight	Approx. 48.0 kg
Supplied accessories	Remote Commander RM831 (1) Battery R6 (1)
Other features	Digital comb filter (High resolution) FASTEXT 100Hz Digital Plus

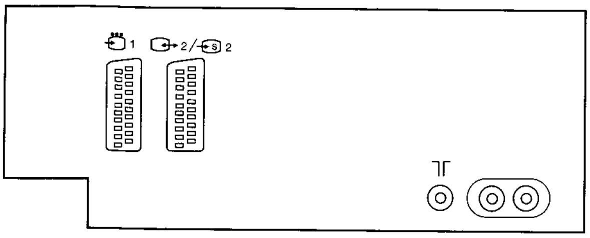
[RM-831]

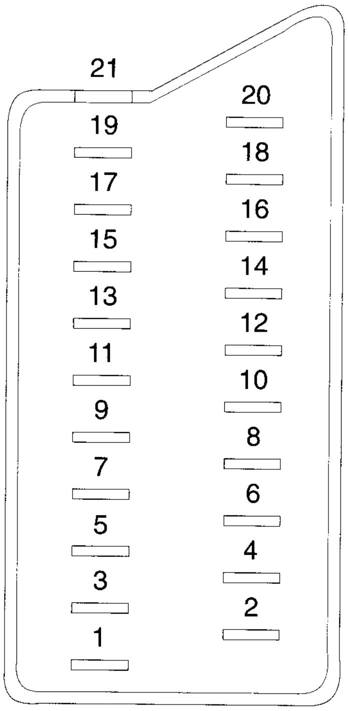
Remote control system	Infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including battery)

Design and specifications are subject to change without notice.

Model name / Item	KV-29X2A	KV-29X2B	KV-29X2D	KV-29X2E
PIP	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF
Rotation Coil	ON	ON	ON	ON
VM Set	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Scart 3	OFF	OFF	OFF	OFF
Front AV	ON	ON	ON	ON
AKB in 16:9 mode	OFF	OFF	OFF	OFF
TXT	ON	ON	ON	ON
FLOF	ON	ON	ON	ON
TOP	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF
Norm D/K	OFF	ON	ON	ON
Norm L	OFF	ON	OFF	OFF
Language Preset	Italian	French	German	Spanish

21 pin connector (⇥1, ⇄ 2 / ⇥S 2)

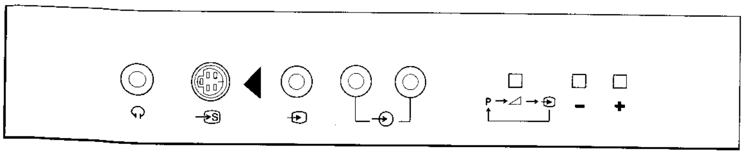




Pin No.	1	2	4	Signal	Signal Level
1	○	○	○	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	○	○	○	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	○	○	○	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	○	○	○	Ground (Audio)	
5	○	○	○	Ground (Blue)	
6	○	○	○	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (Green)	
10	○	○	○	Open	
11	○	●	●	Green	
12	○	○	○	Open	
13	○	○	○	Ground (Red)	
14	○	○	○	Ground (Blanking)	
15	○	–	–	Red input	0.7 ± 3dB, 75 ohms, positive
	–	○	○	(S signal) croma input	0.7 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (Video output)	
18	○	○	○	Ground (Video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	○	–	–	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	–	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	○	○	○	Common ground (plug, sheild)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.



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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

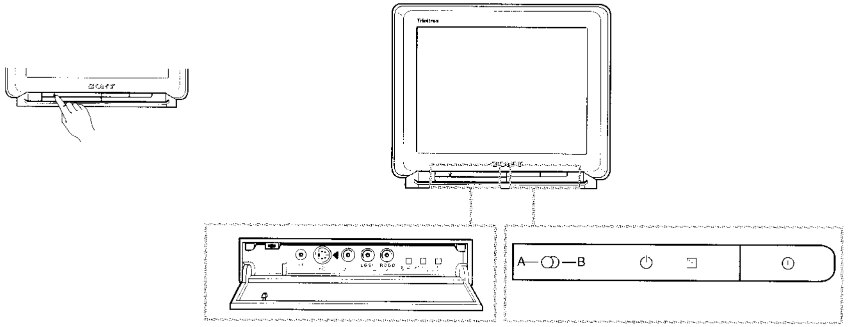
SECTION 1 GENERAL

Overview

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

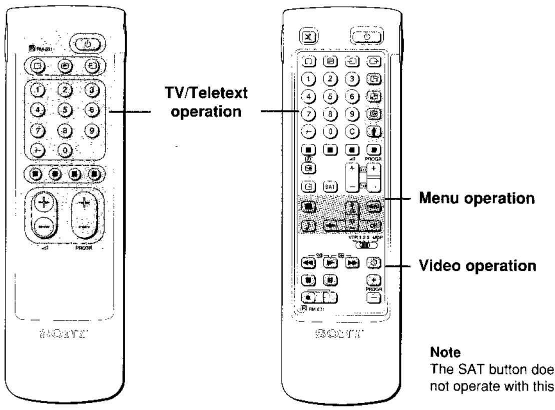
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set - front



Symbol	Name	Refer to page
⏀	Main power switch	33, 40
⏻	Standby indicator	40
A-Ꝏ-B	Stereo A/B mode indicators	42
🎧	Headphones jack	47
⇥S 3, ⇥3, ⇥3	Input jacks (S video/video/audio)	47
P → ◺ → ⇥	Function selector (Programme/volume/input)	40
–/+	Adjustment buttons for function selector	40

Remote Commander RM-831



Simple side

Full-Function side

Note
The SAT button does not operate with this TV.

TV/Teletext operation

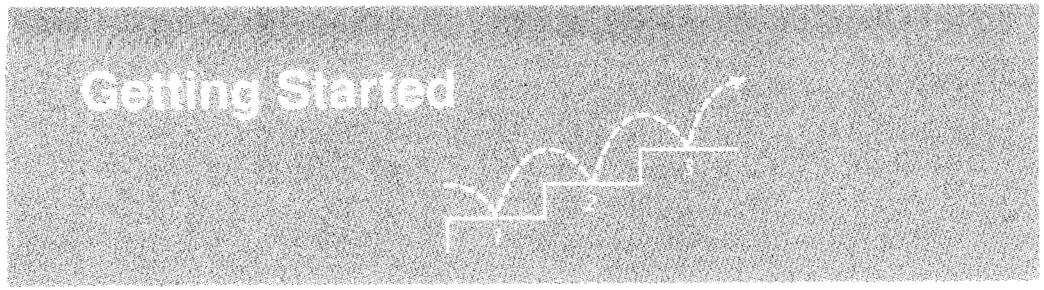
Symbol	Name	Refer to Page
🔇	Muting on/off button	41
⏻	Standby button	40
▢	TV power on/TV mode selector button	40
▤	Teletext button	41
⇥	Input mode selector	41
↦	Output mode selector	48
1,2,3,4,5,6, 7,8,9 and 0	Number buttons	40
–/--	Double-digit entering button	40
C	Direct channel entering button	39
◺ +/–	Volume control button	40
PROGR +/–	Programme selectors	40
⊕⊖	Teletext page access buttons	44
●	Picture adjustment button	42
♪	Sound adjustment button	42
⊕	On-screen display button	41
⊞	Teletext hold button	44
◷	Time display button	41
■■■■	Fastext buttons	44

Menu operation

Symbol	Name	Refer to Page
MENU	Menu on / off button	33
Δ+/∇–	Select buttons	33
OK	OK (confirming) button	33
⬅	Back button	33

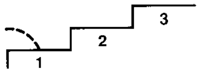
Video operation

Symbol	Name	Refer to Page
VTR1/2/3 MDP	Video equipment selector	49
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/–	Video equipment operation buttons	49

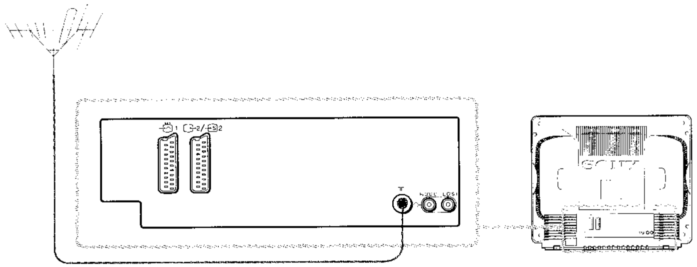


Getting Started

Step 1 – Connection

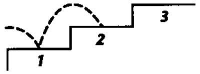


Connect the aerial

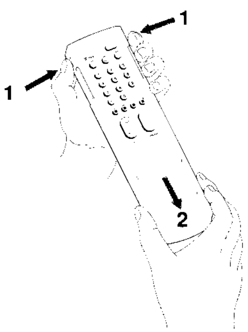


Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the ⫪ socket at the rear of the TV. Make sure to use an aerial cable corresponding to the relevant regulations.

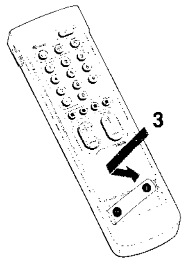
Step 2 – Preparation



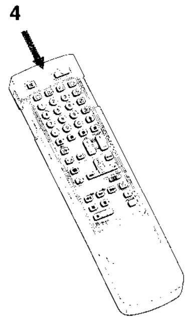
Insert the batteries into the Remote Commander



Remove the cover.

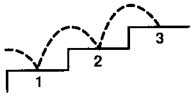


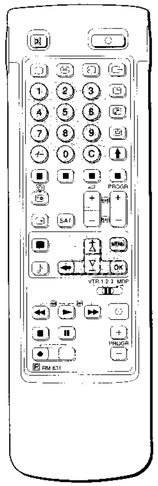
Check the correct polarities.



Refit the outside cover making sure that the Full-Function side is visible to use the menu in Step 3.

Step 3 Tuning in to TV Stations





Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

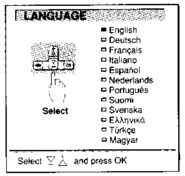
- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

❶ Choose a language

1 Depress ⏻ on the TV.
The TV will switch on. If the standby indicator on the TV is lit, press ▢ or a number button on the Remote Commander.

2 Press the MENU button.
The LANGUAGE menu appears. (See Fig. 1) MENU

3 Select the language you want with △+ or ▽– and press OK.



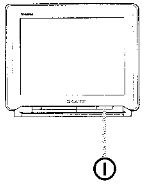
LANGUAGE

Select

- ■ English
- ▢ Deutsch
- ▢ Français
- ▢ Italiano
- ▢ Español
- ▢ Nederlands
- ▢ Português
- ▢ Suomi
- ▢ Svenska
- ▢ Ελληνικά
- ▢ Türkçe
- ▢ Magyar

Select ▽ △ and press OK

Fig. 1



❷ Display the Menu

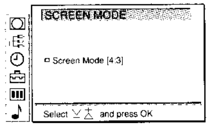
Press the MENU button twice.
The main menu appears. (See Fig. 2)

Using △+ or ▽– select the symbol 🧰 and press OK.

Now, choose one of the methods described overleaf:
»Preset Channels Automatically«

or

»Preset Channels Manually«.



SCREEN MODE

▢ Screen Mode [4:3]

Select ▽ △ and press OK

Fig. 2

To go back to main menu:
Keep pressing ←.

To go back to the normal TV picture:
Press MENU. Normal TV picture will be restored after one minute if menu functions are not selected.

Note on the Demo function:
If you choose Demo in the Installation menu, you can see a sequential demonstration of the menu functions.
Press MENU to stop the function.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting:
Press ← on the Remote Commander.

Notes:
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see »Displaying the Programme Table« on page 41.

- You can sort the programme positions to have them appear on screen in the order you like. For details, see »Sorting Programme Positions« on page 36.

Programme names are automatically taken from Teletext if available. If not, please refer to page 38 »Captioning a Station name« for more information.

❸ Preset channels automatically

1 Select the symbol ▣ for »Preset« with Δ+ or ∇− and press OK.
The PRESET menu appears. (See Fig. 3.)

2 Select »Auto Programme« with Δ+ or ∇− and press OK.
The AUTO PROGRAMME menu appears. (See Fig. 4.)

3 Press OK.
Select if necessary the TV broadcast system (B/G for Western European or D/K for Eastern European countries) with Δ+ or ∇− and press OK. The first element of the »PROG« number will be highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with Δ+ or ∇− or the number buttons (e.g. For »04«, select »0« here) and press OK.
The second element of »PROG« will be highlighted.

5 Select the second element of the double-digit number with Δ+ or ∇− or the number buttons (e.g. For »04«, select »4« here) (See Fig. 5.) and press OK.

6 Select »C« or »S« with Δ+ or ∇− and press OK.
The automatic channel presetting starts.
When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. Press MENU to restore normal TV picture.

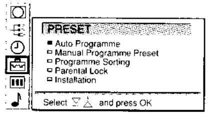


Fig. 3

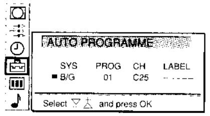


Fig. 4

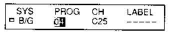


Fig. 5

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one.
You may also allocate programme numbers to various video input sources.

If you have made a mistake:
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture:
Press MENU.

❸ Preset channels manually

1 Select the symbol ▣ for »Preset« with Δ+ or ∇− and press OK.
The PRESET menu appears. (See Fig. 6.)

2 Select »Manual Programme Preset« with Δ+ or ∇− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7.)

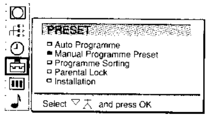
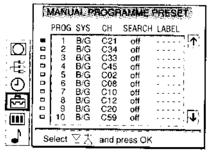


Fig. 6



	PROG	SYS	CH	SEARCH	LABEL
■	1	B/G	C21	off	-----
□	2	B/G	C34	off	-----
□	3	B/G	C33	off	-----
□	4	B/G	C45	off	-----
□	5	B/G	C02	off	-----
□	6	B/G	C08	off	-----
□	7	B/G	C10	off	-----
□	8	B/G	C12	off	-----
□	9	B/G	C20	off	-----
□	10	B/G	C59	off	-----

Fig. 7

To tune in a channel by frequency:
After selecting F in step 6, enter three digits using the number buttons.
Press OK.

If you have made a mistake:
Press ← to go back to the previous position.
To go back to main menu:
Keep pressing ←.
To go back to the normal TV picture:
Press MENU.

3 Using Δ+ or ∇−, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Select, if necessary the TV broadcast system or a video input source (EXT) with Δ+ or ∇−.

5 Then press OK. The CH position wil be highlighted. (See Fig. 8.)

6 Using Δ+ or ∇−, select C (to preset a regular channel), S (cable channel) or F (to tune in by frequency) and press OK.
The first element of the »CH« number will be highlighted.
If you have selected EXT in step 5, select the video input source with Δ+ or ∇−. (See Fig. 9.)

There are two ways to preset channels. If you know the channel number, go to step »7-Manual«,

or

if you don't know the channel number, go to step »7- Search«.

7 ***Manual***

-a Select the first element of the »CH« number with Δ+ or ∇− or the number buttons and press OK.
The second element of the »CH« number will be highlighted.

-b Select the second element of the number with Δ+ or ∇− or the number buttons.
The selected number appears. (See Fig. 10.)

-c Press OK
The »SEARCH« position is highlighted and the selected channel is now stored. (See Fig. 11.)

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

7 ***Search***

-a Press OK repeatedly until the colour of the SEARCH position changes.

-b Start searching for the channel with Δ+ (up) or ∇− (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

-c Press OK if you want to store this channel. If not, press Δ+ or ∇− to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

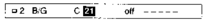


Fig. 8

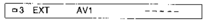


Fig. 9

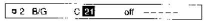


Fig. 10

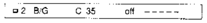


Fig. 11

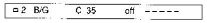


Fig. 12

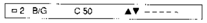
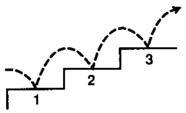


Fig. 13

Additional Presetting Functions

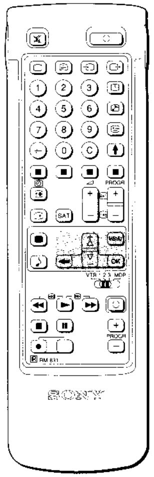


This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- Locate the Menu operation buttons.

PROGRAMME SORTING



Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

1 Press MENU to display the main menu.

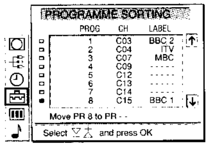
2 Select the symbol 🧰 for »Preset« with Δ+ or ∇– and press OK. The PRESET menu appears.

3 Select »Programme Sorting« with Δ+ or ∇– and press OK. The PROGRAMME SORTING menu appears. (See Fig. 14.)

4 Using Δ+ or ∇– select the programme position which you want to move to another and press OK. The colour of the selected position changes. (See Fig. 15.)

5 Using Δ+ or ∇– select the programme position to which you want to move the channel of the programme position selected in step 4 and press OK. Now the programme positions have been sorted. (See Fig. 16.)

6 Repeat steps 4 and 5 to sort other programme positions.



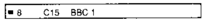
PROGRAMME SORTING

	PROG	CH	LABEL
▫	1	C03	BBC 2
▫	2	C04	ITV
▫	3	C07	MBC
▫	4	C09	- - - - -
▫	5	C12	- - - - -
▫	6	C13	- - - - -
▫	7	C14	- - - - -
●	8	C15	BBC 1

Move PR 8 to PR - -

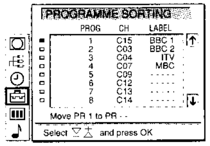
Select ∇ Δ and press OK

Fig. 14



■ 8 C15 BBC 1

Fig. 15



PROGRAMME SORTING

	PROG	CH	LABEL
■	1	C15	BBC 1
▫	2	C03	BBC 2
▫	3	C04	ITV
▫	4	C07	MBC
▫	5	C09	- - - - -
▫	6	C12	- - - - -
▫	7	C13	- - - - -
▫	8	C14	- - - - -

Move PR 1 to PR - -

Select ∇ Δ and press OK

Fig. 16

INSTALLATION

For higher programme positions:
The display scrolls automatically.

If you have made a mistake:
Press ⟵ to go back to the previous position.

To go back to main menu:
Keep pressing ⟵.

To go back to the normal TV picture:
Press MENU.

How to adjust the Picture Rotation

If due to the earth magnetism the picture »slants«, you can use the function »Picture Rotation« to readjust the picture.

1 Press MENU to display the main menu.

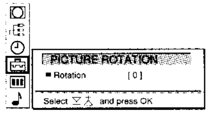
2 Select the symbol 🧰 for »Preset« with Δ+ or ∇– and press OK. The PRESET menu appears.

3 Select »Installation« with Δ+ or ∇– and press OK. The INSTALLATION menu appears.

4 Select »Picture Rotation« with Δ+ or ∇– and press OK. The PICTURE ROTATION menu appears. (See Fig. 17.)

5 Press OK. Adjust the picture rotation with Δ+ or ∇– until you have an upright picture. As you press the cursor buttons, the range changes from – 4 to + 4.

6 Press OK to store the adjustment.



PICTURE ROTATION

■ Rotation [0]

Select ∇ Δ and press OK

Fig. 17

INSTALLATION

Using »Further Programme Preset«

Using the menu »Further Programme Preset« you can

a) individually adjust and store the volume level of each channel (Volume offset).

b) in case of a strong sound signal (distorted sound), attenuate the sound signal for each programme position.

c) use the manual fine tuning to obtain a better picture reception, if the picture is distorted. Normally the AFT (automatic fine tuning) is operating.

1 Press MENU to display the main menu.

2 Select the symbol 🧰 for »Preset« with Δ+ or ∇– and press OK. The PRESET menu appears.

3 Select »Installation« with Δ+ or ∇– and press OK. The INSTALLATION menu appears.

4 Select »Further Programme Preset« with Δ+ or ∇– and press OK. The FURTHER PROGRAMME PRESET menu appears (See Fig. 18).

5 Using Δ+ or ∇– select the desired programme position and press OK once to select a) VOL (Volume offset), twice to select b) » IN-AMP« (Input Amplifier) or three times to select c) AFT (Automatic Fine Tuning). The selected item changes colour.

To adjust or change:

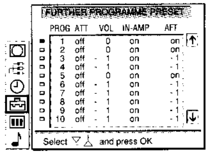
a) **Volume offset (VOL)**
Using Δ+ or ∇– you can adjust the volume level for the selected programme position within a range from –7 to +7. Press OK to store the volume level.
Repeat step 5 to set the volume level for other programme positions.

b) **IN-AMP (Input amplifier)**
Using Δ+ or ∇– select »Off« for the selected programme position. Press OK to confirm the selection. Repeat step 5 to switch off the input amplifier for other programme positions.

c) **AFT**
Using Δ+ or ∇– you can fine-tune the channel within a range from –15 to +15. Press OK to store the fine-tuned level. Repeat step 5 to fine-tune the other channels.

6 Press MENU to return to the normal TV mode.

To reactivate AFT (Automatic Fine Tuning)
Repeat from the beginning and select »ON« in step 5.



FURTHER PROGRAMME PRESET

	PROG	ATT	VOL	IN-AMP	AFT
■	1	off	0	on	on
▫	2	off	0	on	on
▫	3	off	- 1	on	- 1
▫	4	off	- 1	on	- 1
▫	5	off	0	on	on
▫	6	off	- 1	on	- 1
▫	7	off	- 1	on	- 1
▫	8	off	- 1	on	- 1
▫	9	off	- 1	on	- 1
▫	10	off	- 1	on	- 1

Select ∇ Δ and press OK

Fig. 18

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/– buttons. However, the skipped programmes may still be called up when you use the number buttons.

1 Press MENU to display the main menu.

2 Select the symbol 🧰 for »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.

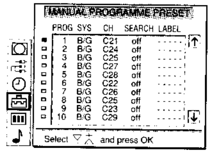
3 Select »Manual Programme Preset« with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig.19.)

4 Using △+ or ▽–, select the programme position which you want to skip and press OK.
The »SYS« position changes colour.

5 Press △+ or ▽– until »– – –« appears in the SYSTEM position. (See Fig. 20.)

6 Press OK. (See Fig. 21.)
When you select programmes using the PROGR +/– buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.


MANUAL PROGRAMME PRESET

	PROG	SYS	CH	SEARCH	LABEL
▪	1	B/G	C21	off	- - - - -
▫	2	B/G	C24	off	- - - - -
▫	3	B/G	C25	off	- - - - -
▫	4	B/G	C27	off	- - - - -
▫	5	B/G	C28	off	- - - - -
▫	6	B/G	C22	off	- - - - -
▫	7	B/G	C26	off	- - - - -
▫	8	B/G	C25	off	- - - - -
▫	9	B/G	C23	off	- - - - -
▫	10	B/G	C29	off	- - - - -

Select ▽ △ and press OK

Fig. 19

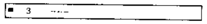

▪ 3 – – –

Fig. 20

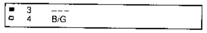

▪ 3 – – –
▫ 4 B/G

Fig. 21

MANUAL PROGRAMME PRESET

Captioning a Station Name

Programme names are usually automatically taken from Teletext if available. You can also »name« a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select the symbol 🧰 for »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select »Manual Programme Preset« with △+ or ▽– and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 22.)

4 Using △+ or ▽–, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △+ or ▽– and press OK.
The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 23.)

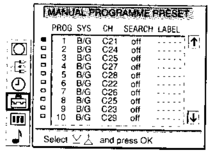
6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin).
Now the caption you chose is stored. (See Fig. 24.)

7 Repeat steps 5 and 6 to caption names for other channels.

If you have made a mistake:
Press ⬅ to go back to the previous position.

To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU.


MANUAL PROGRAMME PRESET

	PROG	SYS	CH	SEARCH	LABEL
▪	1	B/G	C21	off	- - - - -
▫	2	B/G	C24	off	- - - - -
▫	3	B/G	C25	off	- - - - -
▫	4	B/G	C27	off	- - - - -
▫	5	B/G	C28	off	- - - - -
▫	6	B/G	C22	off	- - - - -
▫	7	B/G	C26	off	- - - - -
▫	8	B/G	C25	off	- - - - -
▫	9	B/G	C23	off	- - - - -
▫	10	B/G	C29	off	- - - - -

Select ▽ △ and press OK

Fig. 22

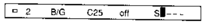

▫ 2 B/G C25 off S▮- - -

Fig. 23

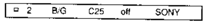

▫ 2 B/G C25 off SONY

Fig. 24

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select the symbol 🧰 for »Preset« with △+ or ▽– and press OK.
The PRESET menu appears.

3 Select »Parental Lock« with △+ or ▽– and press OK.
The PARENTAL LOCK menu appears. (See Fig. 25.)

4 Using △+ or ▽–, select the programme position you want to block and press OK.
The symbol 🔒 appears in front of the programme number indicating that this programme is now blocked. (See Fig. 26.)

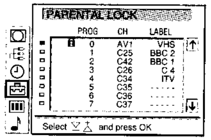
5 Repeat step 4 to block other programme positions.

If you try to select a programme that has been blocked:
The message »LOCKED« appears on the blank TV screen.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with △+ or ▽–.

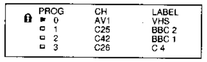
2 Press OK.
The symbol 🔒 disappears indicating that the blocking has been cancelled.


PARENTAL LOCK

		PROG	CH	LABEL
▪	🔒	0	AV1	VHS
▫		1	C25	BBC 2
▫		2	C42	BBC 1
▫		3	C26	C 4
▫		4	C34	ITV
▫		5	C35	- - - - -
▫		6	C36	- - - - -
▫		7	C37	- - - - -

Select ▽ △ and press OK

Fig. 25



		PROG	CH	LABEL
🔒	▪	0	AV1	VHS
	▫	1	C25	BBC 2
	▫	2	C42	BBC 1
	▫	3	C26	C 4

Fig. 26

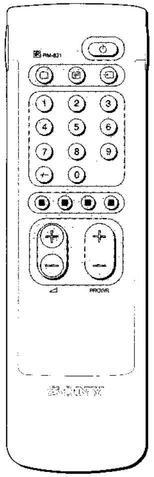
Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

1 Press C on the Remote Commander. For cable channels, press C twice.
The indication »C« (»S« for cable channels) appears on the screen.

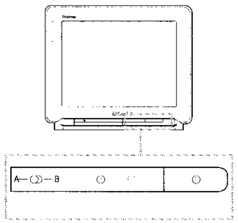
2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

Watching the TV



If no picture appears when you depress ⏻ on the TV
and if the standby indicator on the TV is lit, the TV is in standby mode. Press ▭ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.



Switching the TV on and off

Switching on

Depress ⏻ on the TV.

Switching off temporarily

Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again
Press ▭, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⏻ on the TV.

Selecting TV Programmes

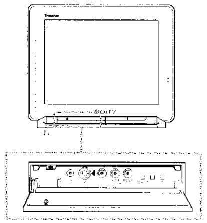
Press PROGR +/– or the number buttons.

To select a double-digit number

Press -/--, then the number.
For example, if you want to choose 23, press -/--, 2 and 3.

Adjusting the Volume

Press ◢+/–.

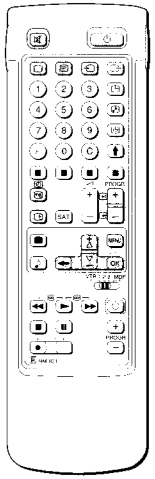


Operating the TV Using the Buttons on the TV

- With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.
  Press P → ◢ → ⊕ button repeatedly until the programme number, ◢ (for volume), or ⊕ (for video input picture) appears.Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function).

For details of the teletext operation, refer to page 45.

For details of the video input picture, refer to page 48.



Watching Teletext or Video Input

Watching teletext

- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ⊞ (PAGE +) or ⊟ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▭.

Watching a video input picture

Press ⊕ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▭.

More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

Press 🔇.
To resume normal sound, press 🔇 again.

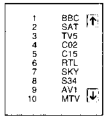
Displaying the time

Press ◷. This function is available only when teletext is broadcast.
To make the time display disappear, press ◷ again.

Displaying the Programme Table

Press OK. A Programme Table will be displayed on the right side of the TV screen (See Fig.27).

Selecting TV programmes
Press PROGR +/– or select the desired programme position using Δ+ or ∇– and press OK.
To make the Programme Table disappear, press MENU.



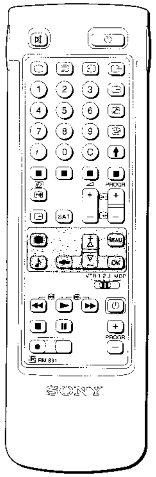
1 BBC
2 SAT
3 TV5
4 C02
5 C15
6 RTL
7 SKY
8 S34
9 AV1
10 MTV

Fig. 27

Adjusting and Setting the TV Using the Menu

PICTURE CONTROL

SOUND CONTROL



If you have made a mistake:
Press ⬅ to go back to the previous position.

To go back to the main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU.

Note on LINE OUT:
The audio level and the dual sound mode output from the ⊖ jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching a video input source with stereo sound:
You can select DUAL SOUND to change the sound.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. You can also select dual sound (bilingual) programmes when available and adjust the sound for listening with the headphones (Ω).

1. Press ● (for picture) or ♪ (for sound) on the Remote Commander.

   or

   Press MENU and select on the screen the symbol ▥ for Picture Control or ♪ Sound Control, then press OK.
   The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 28 or Fig. 29)
2. Using Δ+ or ∇–, select the item you want to adjust and press OK.The selected item changes colour. (See Fig. 30)
3. Adjust the setting with Δ+ or ∇ – and press OK.
   The cursor appears beside the next item (at the left margin). (See Fig. 31)
   For the effect of each control, see the table below.
4. Repeat steps 2 and 3 to adjust other items.

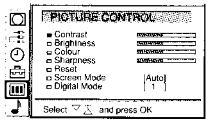

PICTURE CONTROL
■ Contrast
□ Brightness
□ Colour
□ Sharpness
□ Reset
□ Screen Mode [Auto]
□ Digital Mode [1]
Select ∇ Δ and press OK

Fig. 28

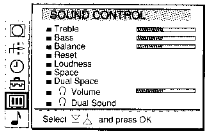

SOUND CONTROL
■ Treble
■ Bass
■ Balance
■ Reset
■ Loudness
■ Space
■ Dual Space
■ Ω Volume
■ Ω Dual Sound
Select ∇ Δ and press OK

Fig. 29

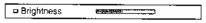

□ Brightness

Fig. 30

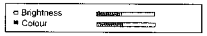

□ Brightness
■ Colour

Fig. 31

Effect of each control

PICTURE CONTROL	Effect
Contrast	Less ——I—— More
Brightness	Darker ——I—— Brighter
Colour	Less ——I—— More
Hue (only for NTSC)	Greenish ——I—— Reddish
Sharpness	Softer ——I—— Sharper
Reset	Resets picture to the factory preset levels.
Screen Mode	Auto (automatic selection of 16:9 broadcasts decoded in 4:3) → 4:3 Normal → 16:9 Wide screen effect
Digital Mode	I: Normal II: LFR (Line Flicker Reduction) off

SOUND CONTROL	Effect
Treble	Less —I— More
Bass	Less —I— More
Balance	More left —I— More right
Reset	Resets sound to the factory preset levels.
Loudness	off : Normal on : When listening to low volume sound.
Space	off : Normal on : Obtain acoustic sound effect.
Dual Sound	A : left channel B : right channel stereo mono The selected mode of the A-CD-B indicator on the TV lights up.
Headphones:	
Ω Volume	Less —I— More
Ω Dual Sound	A : left channel B : right channel STEREO MONO

TIMER

To switch off the timer:
Select »OFF« in step 3.

To check the remaining time:
Press ◷.

To go back to the normal TV picture:
Press MENU.

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1. Using Δ+ or ∇– select the symbol ◷ for »Timer« and press OK. The TIMER menu appears (see Fig. 32).
2. Press OK.
   The time period option changes colour.
3. Select the time period with Δ+ or ∇–.
   The time period (in minutes) changes as follows:
   off →10→20→30→40→50→60→70→80→90
4. After selecting the time period, press OK.
   The cursor moves back to the left margin and the timer starts counting.
   One minute before the TV switches into standby mode, a message is displayed on the screen.

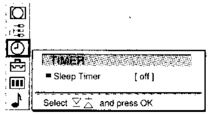

TIMER
■ Sleep Timer [off]
Select ∇ Δ and press OK

Fig. 32

SCREEN MODE

Operating Screen Mode using the Menu

1. Press MENU to display the main menu.
2. Select »Screen Mode« with Δ+ or ∇– and press OK. The SCREEN MODE menu appears (See Fig. 33).
3. Press OK.
4. Using Δ+ or ∇– select the desired format (4:3 normal ratio or 16;9 for wide screen effect) and press OK.

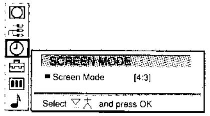
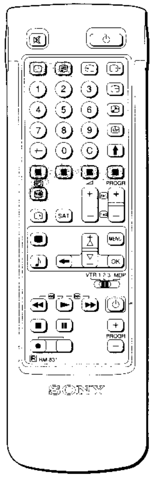

SCREEN MODE
■ Screen Mode [4:3]
Select ∇ Δ and press OK

Fig. 33

Teletext



Notes:
- Teletext errors may occur if the broadcasting signals are weak.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).If there is no teletext broadcast, »No text available« is displayed on the information line at the top of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection
Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press OK. Using △+ or ▽–, select the desired page. »Page Catching« will be displayed on the information line. Press OK. The requested page will appear in a few seconds.

Press ⊜ to resume normal teletext reception.

Accessing the next or preceding page
Press ⊞ (PAGE +) or ⊟ (PAGE –).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

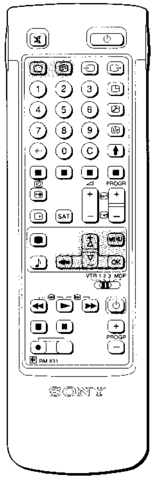
Preventing a teletext page from being updated

- Press ⊜ (HOLD). The HOLD symbol »⊜« is displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

Note:
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

With Fastext you can access pages with one key stroke.When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.



Note:
Some of the features may not be available depending on the Teletext service.

Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34)

2 Using △+ or ▽–, select the teletext function you want and press OK. (See Fig. 35)

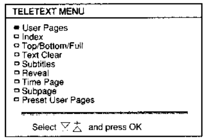


Fig. 34

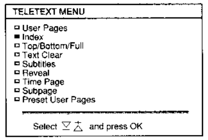


Fig. 35

USER PAGES/PRESET USER PAGES

See page 50 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down the screen. After having selected the function, an information line Top/Bottom/Full will be displayed. (See Fig. 36).
Press △+ for »Top« to enlarge the upper half. For »Bottom« keep pressing ▽–, to enlarge the lower half. Press OK for »Full« to resume the normal size.
Press ⊜ to resume normal teletext reception.

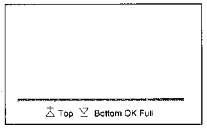


Fig. 36

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol changes colour) (See Fig. 37).
Press ⊜ to view the requested page.

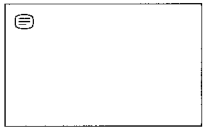


Fig. 37

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 38).

Using △+ or ▽–, select ON to reveal the information or OFF to conceal it again.
Press ⊜ to resume normal teletext reception.

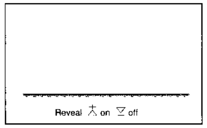


Fig. 38

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time.

1 Press OK. Using △+ or ▽– select ON and press OK.

2 To select the desired page, enter the three digits of the page number (e. g. 301) using the number buttons.

3 To select the time, enter four digits for the desired time (e.g. 1800) using the number buttons. Press MENU. The selected time is displayed at the top in the left-handed corner. At the requested time, the page will be displayed.
Press ⊜ to resume normal teletext mode.

To cancel the request:
Select »OFF« for the TIME PAGE setting.

To cancel the request:
Select »Subpage« and press OK.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR+/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

User Page Bank System

You can store up to 30 pages in the »Teletext page bank system«. In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 »banks« (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1 Press ⊜ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select PRESET USER PAGES with △+ or ▽– and press OK.

3 Select the desired bank with △+ or ▽– and press OK. The cursor will go to the first position (P1) of the preferred pages.

If two broadcasting stations use the same Teletext:
You can preset one bank to 2 different programme positions.

4 Input the three digits of your first preferred page with the number buttons and press OK.
The cursor will go to the second position.

5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.

6 Select Allocate Bank with △+ or ▽– and press OK.

7 Select the programme position for which you have preset pages with △+ or ▽– and press OK. (See Fig. 39)

8 Select the desired bank with △+ or ▽– (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.

Displaying User Pages

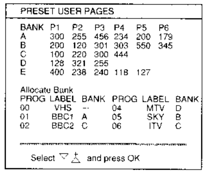
1 Select MENU.

2 Select User Pages with △+ or ▽– and press OK.
A table of the stored preferred pages will be displayed.
(See Fig. 40)

3 Select the desired page with △+ or ▽– and press OK. The page will be displayed after some seconds.

or

You can use the coloured buttons on the Remote Commander to have quick access to the first four User pages. Page 1 corresponds to the red button, P 2 to the green one, P 3 to the yellow one and P 4 to the blue button.
To select the desired page press the respective coloured button while you are in TV mode. Now the Page number of this teletext page will appear in white at the top in the left-handed corner of the TV screen. When the page number changes colour, the page is available. Press the coloured button again to display the page.



PRESET USER PAGES

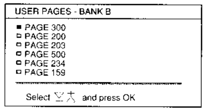
BANK	P1	P2	P3	P4	P5	P6
A	300	255	456	234	200	179
B	200	120	301	303	550	345
C	100	220	300	444		
D	128	321	255			
E	400	238	240	118	127	

Allocate Bank

PROG	LABEL	BANK	PROG	LABEL	BANK
00	VHS	--	04	MTV	D
01	BBC1	A	05	SKY	B
02	BBC2	C	06	ITV	C

Select ▽ △ and press OK

Fig. 39



USER PAGES - BANK B

■ PAGE 300
□ PAGE 200
□ PAGE 203
□ PAGE 500
□ PAGE 234
□ PAGE 159

Select ▽ △ and press OK

Fig. 40

Connecting and Operating Optional Equipment

Connecting Optional Equipment

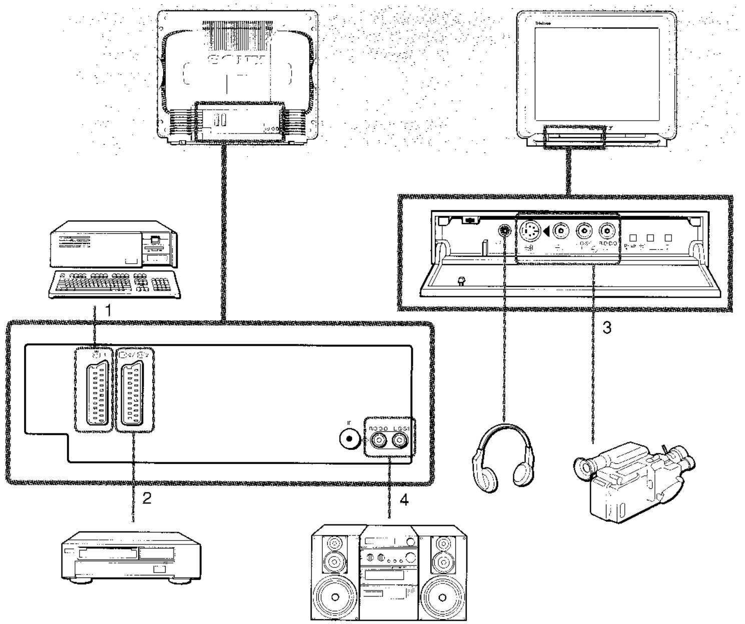
You can connect optional audio-video equipment to this TV such as VCRs, video disc players, and stereo systems.

To connect a VCR using the ⫪ terminal
Connect the aerial output of the VCR to the aerial terminal ⫪ of the TV.
We recommend that you tune in the signal to programme number »0«. For details see »Preset Channels Manually« on page 34.

If the picture or the sound is distorted
Move the VCR away from the TV.

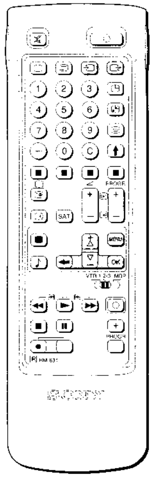
S video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance).

When connecting a monaural VCR:
Connect only the white ⊖ jack to both the TV and VCR.



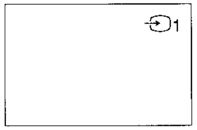
Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 No inputs	Audio signal (variable)

Selecting input with PROGR +/– or number buttons:
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons.
For details, see »Preset channels manually« on page 34.



Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.



Selecting input

Press -⊖ repeatedly to select the input source.
The symbol of the selected input source will appear.

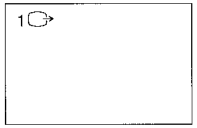
To go back to the normal TV picture
Press ▢.

Input modes

Symbol	Input signal
-⊖ 1	Audio/video input through the -⊖1 connector
-⊖	RGB input through the -⊖1 connector
-⊖ 2	Audio/video input through the ⊖→2/-Ⓢ2 connector
-Ⓢ 2	S video input through the ⊖→2/-Ⓢ2 connector
-⊖ 3	Audio/video input through -⊖3 and -⊖3 connectors at the front
-Ⓢ 3	S video input through the -Ⓢ3 connectors (4-pin connector) at the front

You can also select the input mode using the P → ◺ → -⊖ and –/+ buttons on the TV.

In this case, select first -⊖ and then press the –/+ buttons to select the input.



Selecting the output

The ⊖→2/-Ⓢ2 connector outputs the source input from the other connectors.

You can also select the input mode using the and buttons on the TV. In this case, select first and then press the buttons to select the input.

Symbol	⊖→2/-Ⓢ2 connector outputs
1 ⊖→	The audio/video signal from the -⊖1 connector
2 ⊖→	The audio/video signal from the ⊖→2/-Ⓢ2 connector
2 Ⓢ→	The audio/video signal from the ⊖→2/-Ⓢ2 connector
3 ⊖→	The audio/video signal from the -⊖3, -⊖3 connectors
3 Ⓢ→	The audio/video signal from the -Ⓢ3, -⊖3 connectors
TV⊖→	The audio/video signal from the ⫪ aerial terminal

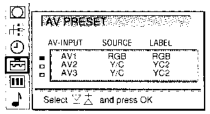
Using AV Preset

Using this function you can preset the desired input source (e.g. -⊖1, RGB signal) to the respective AV input (AV 1 -⊖).
In this way a connected VTR will automatically switch to the RGB signal.

1 Select the symbol ▤ for »Preset« with △+ or ▽– and press OK.

2 Select first »Installation«, then »AV Preset« with △+ or ▽– and press OK.
The AV PRESET menu appears (See Fig. 41).

3 Select the desired AV input with △+ or ▽– and press OK.

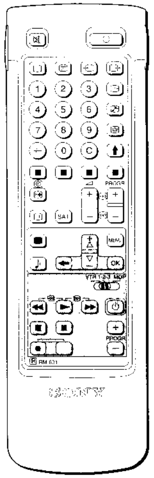


AV PRESET

AV-INPUT	SOURCE	LABEL
AV1	RGB	RGB
AV2	Y/C	YC2
AV3	Y/C	YC2

Select ▽△ and press OK

Fig. 41



When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

4 Select the desired source with △+ or ▽– and press OK.
For the respective AV inputs you have the following possibilities:

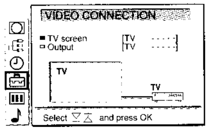
AV 1	RGB or AV	AV 3	YC3 or AV
AV 2	YC2 or AV		

5 If you want to name the AV input select »Label« using △+ or ▽– and press OK. Select a letter or a number with △+ or ▽– and press OK. The next element will be highlighted. Select other characters in the same way. If you want to leave an element blank, select – and press OK.
After having selected all the characters, press OK repeatedly until the cursor appears by the next AV input at the left margin.

6 Repeat steps 3 to 5 for the other AV inputs.

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PIP screen, and which output source is selected. You can also select them on the menu display.



VIDEO CONNECTION
■ TV screen TV
□ Output TV
TV
TV
Select ▽△ and press OK

Fig. 42

1 Select the symbol ⫶⊖ for »Video Connection« with △+ or ▽– and press OK. The VIDEO CONNECTION menu appears.
(See Fig. 42)
You can see which source is selected for the TV and PIP input, and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV Screen (input source for the TV screen), PIP(input source for the PIP screen), or output (output source) with △+ or ▽– and press OK. One of the source items changes colour.

3 Select the desired source with △+ or ▽–.
For details about each source, see the table on page 40.

4 Press OK.
The selected source is confirmed, and the cursor appears.

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control other Sony remote- controlled video equipment. The buttons for video operation have been factory-set to control most of Sony video equipment, such as: Beta, 8mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:
VTR 1: Beta VCR
VTR 2: 8mm VCR
VTR 3: VHS VCR
MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.
If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

For Your Information

Troubleshooting

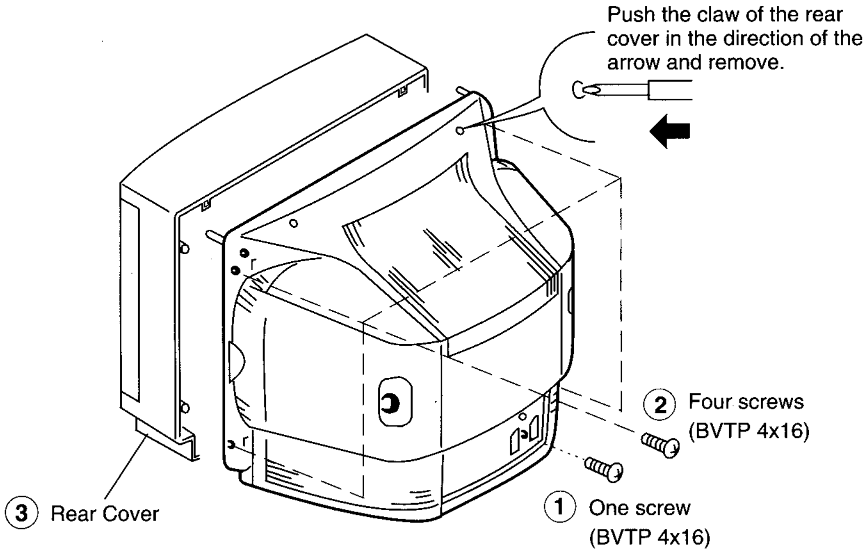
Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press ⏻ on the TV. (If ⏻ indicator is on, press ▢ or a programme number on the Remote Commander.) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ⏻.
Poor or no picture (screen is dark), but good sound	• Press ● to enter the PICTURE CONTROL menu and adjust »Brightness«, »Contrast« and »Colour«.
Poor picture quality when watching an RGB video source	• Press ⇥ repeatedly to select ⇥.
Good picture but poor or no sound	• Press ◢ +. • If 🔇 is displayed on the screen, press 🔇. • Check the connections of the loudspeakers.
No colour for colour programmes	• Press ● to enter the PICTURE CONTROL menu, select RESET, then press OK.
Remote Commander does not function.	• Replace batteries.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

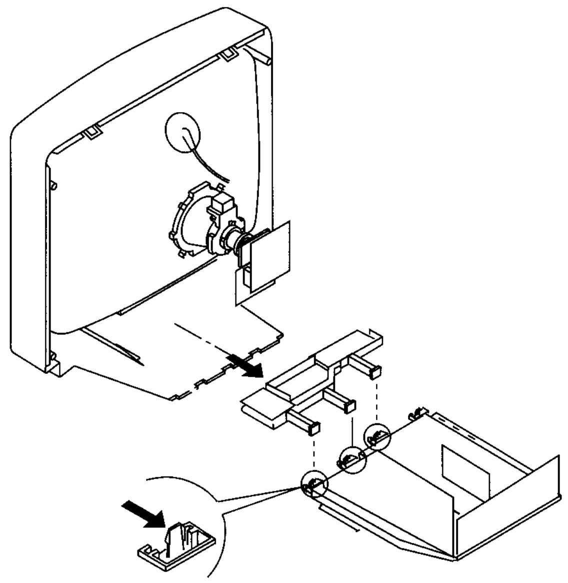
SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

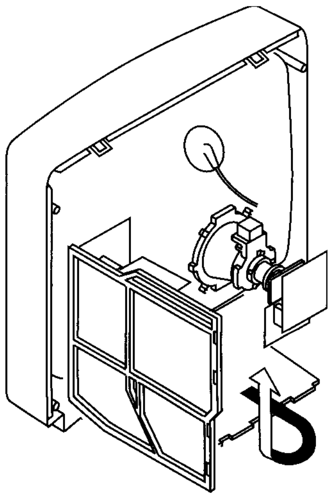

Push the claw of the rear cover in the direction of the arrow and remove.

② Four screws
(BVTP 4x16)
① One screw
(BVTP 4x16)
③ Rear Cover

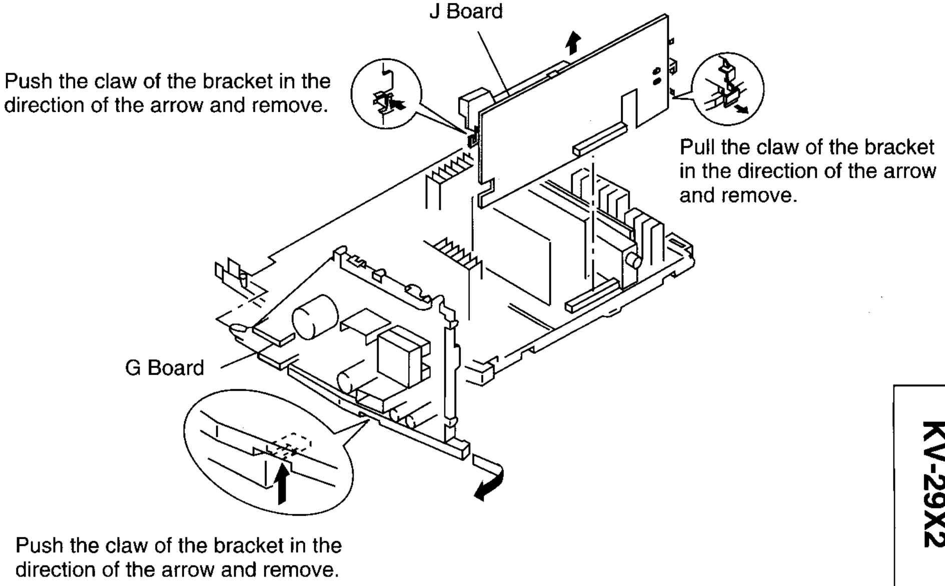
2-2. CHASSIS ASSY AND H BRACKET REMOVAL



2-3. SERVICE POSITION



2-4. G AND J BOARD REMOVAL

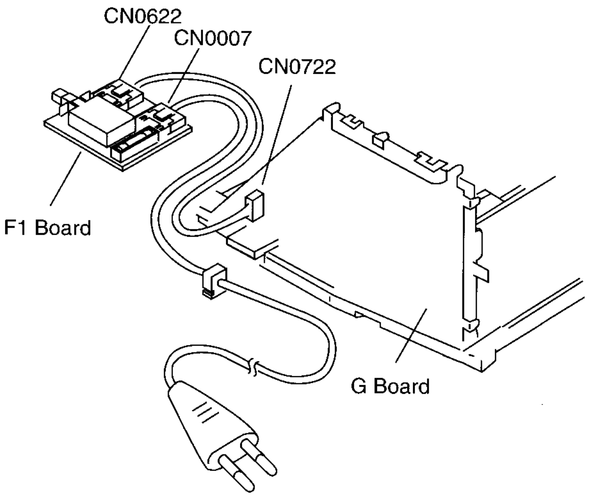

Push the claw of the bracket in the direction of the arrow and remove.

Pull the claw of the bracket in the direction of the arrow and remove.

Push the claw of the bracket in the direction of the arrow and remove.

J Board
G Board

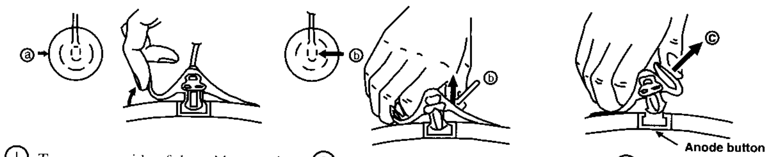
2-5. WIRE DRESSING


CN0622
CN0007
CN0722
F1 Board
G Board

• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.


ⓐ
ⓑ
ⓑ
ⓒ
Anode button

① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

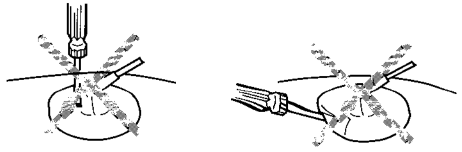
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE AN ANODE-CAP

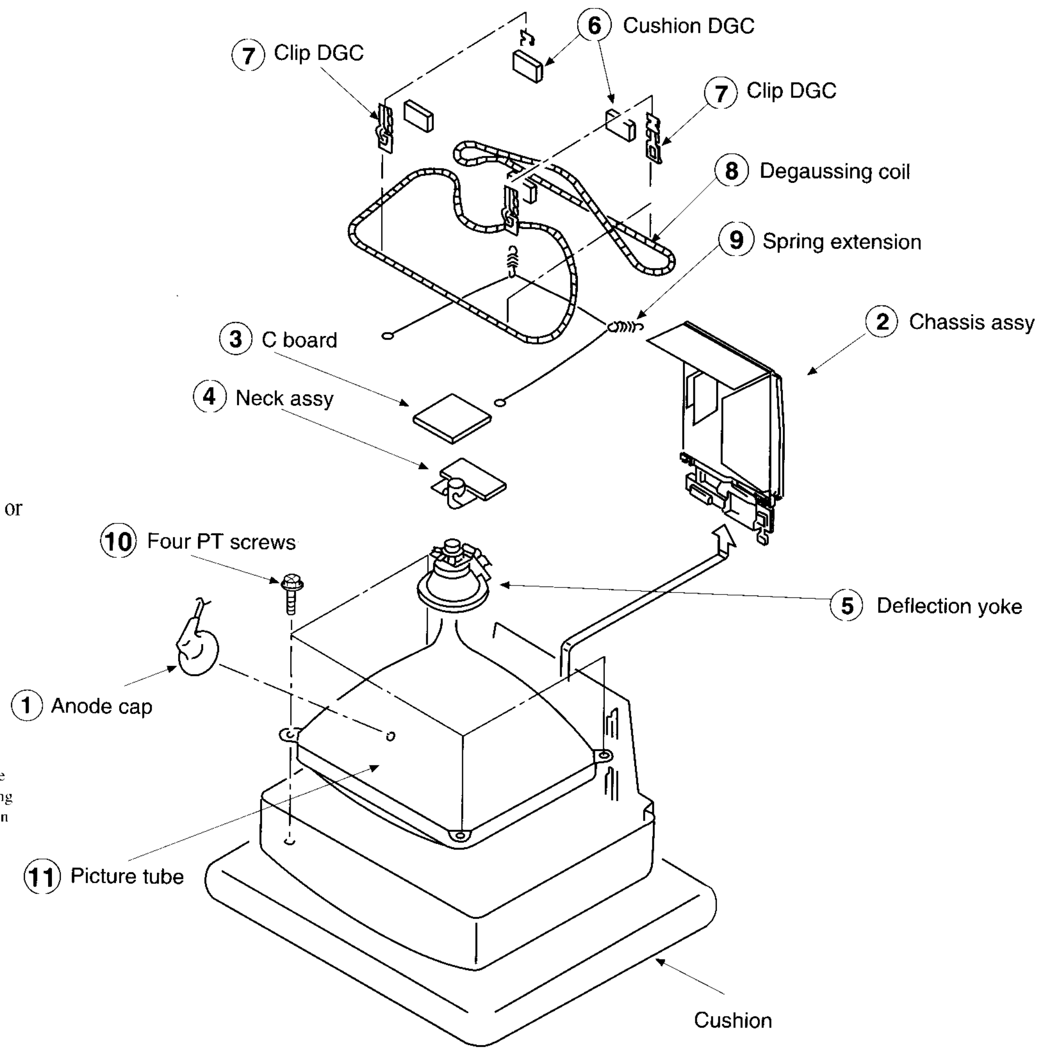
① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



2-6. PICTURE TUBE REMOVAL


⑦ Clip DGC
⑥ Cushion DGC
⑦ Clip DGC
⑧ Degaussing coil
⑨ Spring extension
② Chassis assy
③ C board
④ Neck assy
⑩ Four PT screws
⑤ Deflection yoke
① Anode cap
⑪ Picture tube
Cushion

SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustment with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches as follows.

Contrast .... normal
Brightness .... normal

- Carry out the following adjustments in this order:

3-1. Beam landing
3-2. Convergence
3-3. Focus
3-4. White balance

Note: Testing equipment required.
1. Colour bar/pattern generator
2. Degausser
3. Vector scope

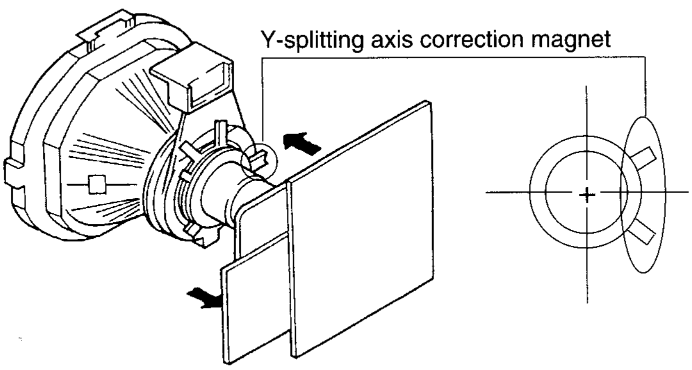
3-1. BEAM LANDING

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube face it in an easterly or westerly direction.
2. Switch on the set's power and degauss with the degausser.

(1) Adjustment of Correction Magnet for Y-Splitting Axis

1. Input a crosshatch signal from the pattern generator.
2. Picture control is minimum and brightness control is still normal.
3. Position the neck assy as shown in Fig. 3-2.
4. Move the deflection yoke forward to touch the CRT and it stands up rightly.
5. Adjust the upper pin and the lower pin symmetrically by opening or closing the Y-splitting axis correction magnets on the neck assy.
6. Return the deflection yoke to its original position.



(2) Landing

Note: Before carrying out the following adjustments adjust the magnets as indicated below (See Fig.3-3).

1. Input an all-white signal from the pattern generator. Maximize the picture setting and adjust the brightness setting.
2. Rough-adjust the focus and horizontal convergence.
3. Loosen the deflection yoke screws, align the purity adjustment knob to the central position. (See Fig. 3-1)
4. Switch from the all-white pattern to an all-green pattern.
5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the center and it aligns symmetrically. (See Fig. 3-4)
6. Move the deflection yoke forward and adjust so that entire screen becomes green.
7. Switch the raster signal to red, then to blue and verify the landing condition.
8. When the position of the deflection yoke has been determined, fasten the deflection yoke with the screw.
9. If the beam does not land correctly in all the corners, use magnets to correct it. (See Fig. 3-5)

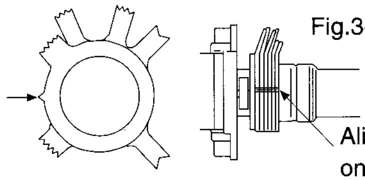


Fig.3-3

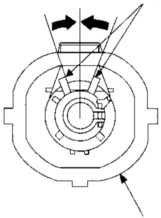
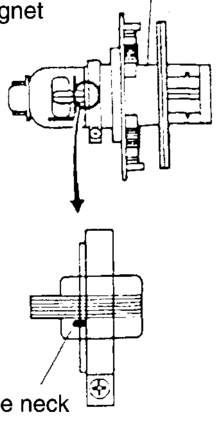


Fig.3-1



Align the bottom edge of the neck assy with the G3 hole center.

Fig.3-2

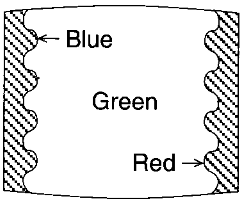

Blue
Green
Red

Fig.3-4

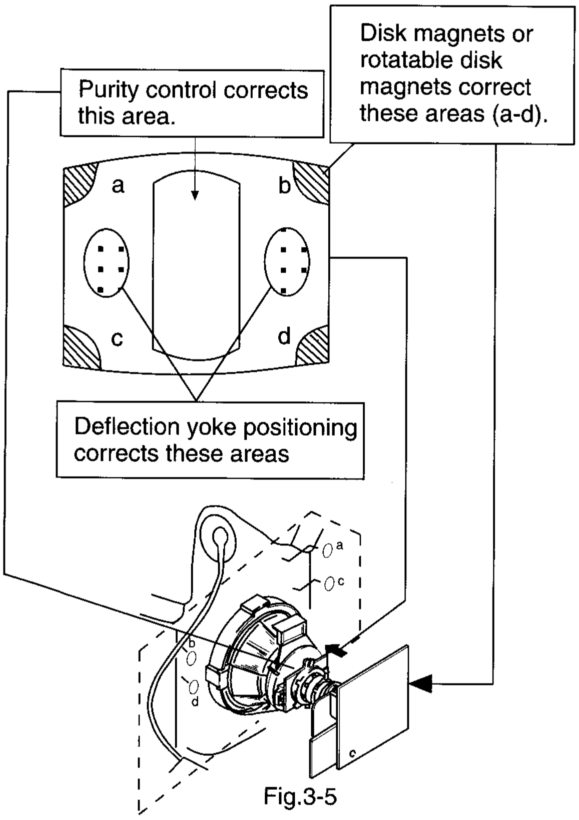
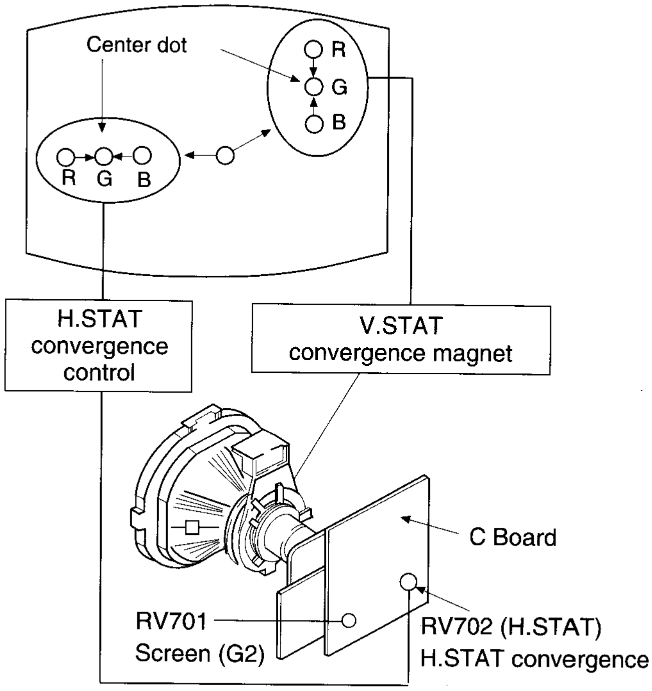

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a-d).
a
b
c
d
Deflection yoke positioning corrects these areas
a
c
b
d

Fig.3-5

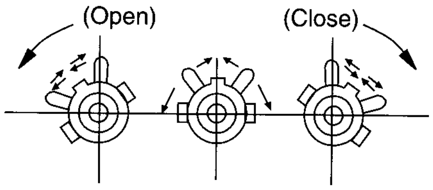
3-2. CONVERGENCE

(1) Screen center convergence (Static convergence)

1. Input a dot signal from the pattern generator. Normalize the picture setting.
2. (Moving horizontally), adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the center of screen.
3. (Moving vertically), adjust the V.STAT magnet so that the vertical red, green and blue points coincide at the center of screen.

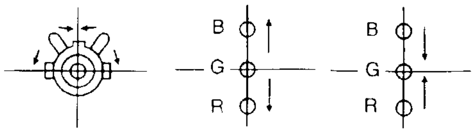

Center dot
R
G
B
R G B
H.STAT convergence control
V.STAT convergence magnet
C Board
RV701
Screen (G2)
RV702 (H.STAT)
H.STAT convergence

- If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking. (Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)

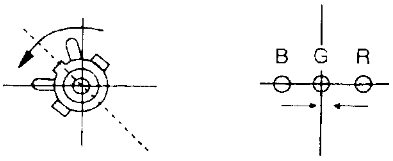


4. Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.

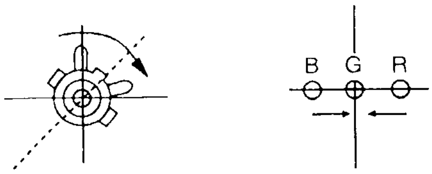
① By opening or closing the V.STAT magnet, the red, green and blue points move as shown below



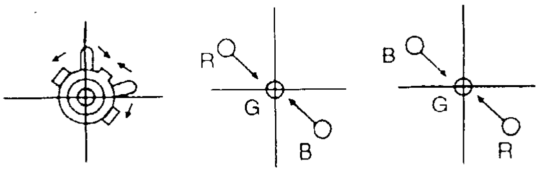
②By rotating the V. STAT magnet counterclockwise, the red, green and blue dots move as shown below.



③By rotating the V.STAT magnet clockwise, the red, green and blue dots move as shown below.



④By opening or closing the V.STAT magnet, the red, green and blue dots move as shown below.

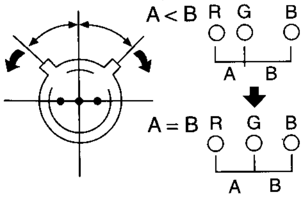


- If the blue dot does not coincide with the red and green points, correct the points by using the BMC (Hexapole) magnet.

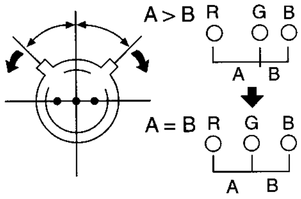
⑤Correction for HMC (horizontal mis-convergence) and VMC (vertical mis-convergence) by using the BMC (Hexapole) magnet.

①HMC correction by BMC (Hexapole) magnet and movement of the electronic beam.

HMC correction (A)

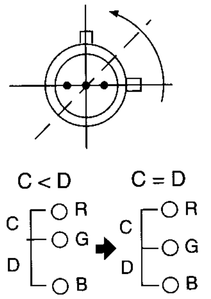

A<B R G B
A B
A=B R G B
A B

HMC correction (B)

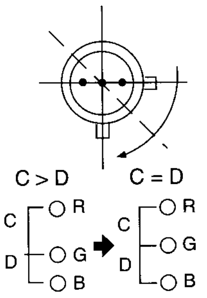

A>B R G B
A B
A=B R G B
A B

②VMC correction by BMC (Hexapole) magnet and movement of the electronic beam.

VMC correction (A)


C<D
C=D
C R G D B
C R G D B

VMC correction (B)


C>D
C=D
C R G D B
C R G D B

Layout of each control

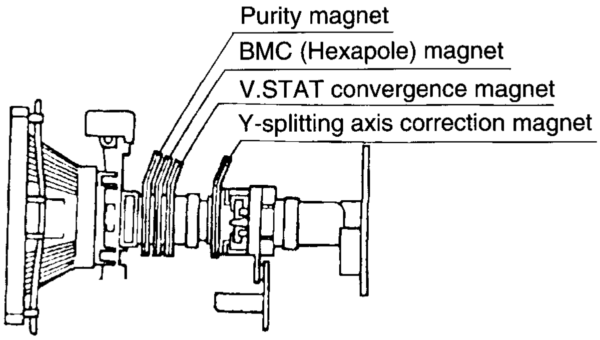
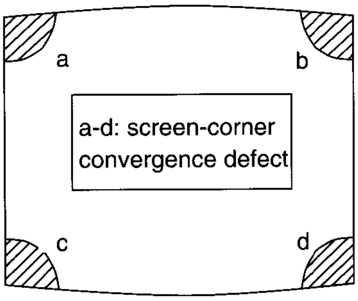
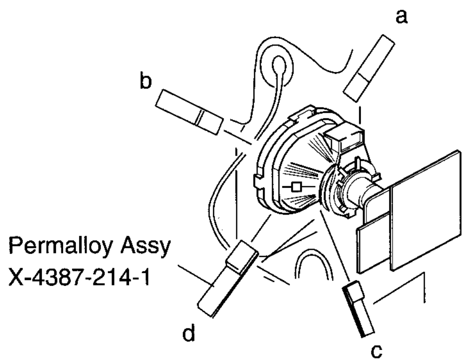

Purity magnet
BMC (Hexapole) magnet
V.STAT convergence magnet
Y-splitting axis correction magnet

Fig.3-5

- If you are unable to adjust the corner convergence properly, correct them with the use of permalloys.

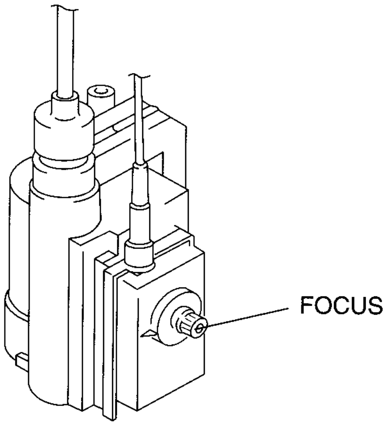

a
b
a-d: screen-corner convergence defect
c
d


a
b
Permalloy Assy
X-4387-214-1
d
c

Convergence adjustment with permalloy

3-3. Focus

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer for the best focus at the center of the screen.
   Bring only the center area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White balance (Adjustment in the service mode with remote commander)

G2 adjustment (RV702)

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control RV701 [SCREEN] on the C board to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into the Service Mode by pressing ' TEST ', ' TEST ' and ' 01' on the Service Commander.
3. Select ' CRT Driver ' from the on screen menu display and press OK .
4. The 'CRT Driver CXA1840' menu will appear on screen.

CRT Driver CXA 1840

Crt Driver		CXA1840
21	R DRIVE	41
22	G DRIVE	adj
23	B DRIVE	adj
24	R CUT-OFF	10
25	R C	0
26	G CUT-OFF	adj
27	G C	0
28	B CUT-OFF	adj
29	B C	0
30	AFC MASK	0
31	DRIVE LVL	52
32	SUB BRT	adj
33	H SWEEP SW	on
34	SKEW D	off
35	OUT DC	0

5. Set picture to MAX.
6. Set the ' R DRIVE ' to 41.
7. Adjust the ' G DRIVE ' and ' B DRIVE ' with the ▲ ▼ buttons so that the white balance becomes optimum.
8. Press the OK button to write the data for each item.
9. Set picture to MIN.
10. Adjust ' R CUT-OFF ', ' G CUT-OFF' and ' B CUT-OFF ' with the ▲ ▼ buttons so that the white balance becomes optimum.
11. Press the OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-831.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing the + (plus) and - (minus) buttons on the customer front panel.

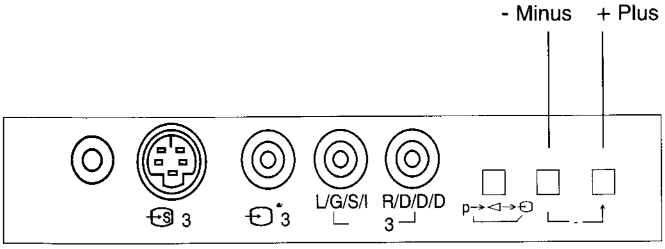


Fig. 4-1

2. "TT" will appear on the upper right corner of the screen.

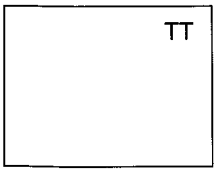


Fig. 4-2

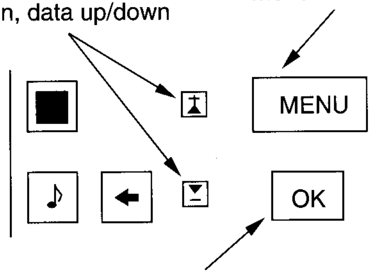

Command operation in service mode
Item selection, data up/down
Menu indication
MENU
OK
Selection completion,
data writen-in

Fig. 4-3

3. Press "Test" " "Test" and 01 on the commander to get the menu on screen.

AE -- V7-62 AE-3 08/06/95

Init TV
PIP Adjust
Adjustments
Video Contr
CRT Driver
Dynamic Conv
Video Proc
PIP
PIP Dynamic
Aspect / Field

SRC
TDA6812
PALPLUS
TDA9160
TDA9145

4. Press the ▲ and ▼ buttons on the remote commander to select the adjustment item.
5. Press the OK button to proceed to the next menu.
6. If the adjustment item is 'CRT Driver', press the ▼ button to move to 'CRT Driver'.
7. The Menu as indicated in Fig 4-4 will appear on the screen.

	CRT Driver	CXA1840
1	V POS	adj
2	V SIZE	adj
3	V LIN BAL	adj
4	V LIN	adj
5	V SCROLL	127
6	V ASP PAP	2
7	H POS	adj
8	H SIZE	adj
9	H PIN CUSH	adj
10	H TILT	adj
11	H UP COR	adj
12	H LOW COR	adj
13	AFC V BOW	adj
14	AFC V ANGLE	adj
15	V COMP	5

⬅ Back O K Select

Fig. 4-4

8. Press the ▼ button to move > to the adjustment item and press the OK button.
9. Press the ▲ and ▼ buttons to change the data in order to comply with each standard.
10. Press the OK button to write data into memory.
11. Turn off the power to quit the service mode when adjustments have been completed.

CXA1839 (VIDEO CONT)

Item No	Adjustment item	Data Amount
1	SUB BRT	8
2	SUB COL1	8
3	SUB CONT1	8
4	PIC	53
5	HUE	31
6	COL	31
7	BRT	31
8	SHP	31
9	SUB HUE	7
10	D.COIL	off
11	SHP LIM	off
12	AGE WHT	off
13	R-Y/R	13
14	R-Y/B	15
15	G-Y/R	7
16	G-Y/B	5
17	RGB LEV2	8
18	SUB SHP	1
19	SUB FO	2
20	PRE/OVER	0
21	NR LEVEL	1
22	DC TRAN	0
23	DYN PIC	1
24	CEC LEVEL	2
25	VM LEVEL	2
26	ABL MODE	1
27	DYN ABL	off
28	Y SYM SW	off
29	AGE BLK	off

CXD2035 (ASPECT)

Item No	Adjustment item	Data Amount
1	COMPRESS	7
2	FRAME WID	5

CXD2030 (VIDEO PROCESSOR)

Item No	Adjustment item	Data Amount
1	DNR	on
2	DNR VALUE	5
3	TA SYN CLP	16
4	TB BGP	50
5	TD CLP	25
6	FOTO CD SW	off
7	BLK PORCH	16
8	NT TD BGP	25
9	PAL TD BGP	25
10	N.SECAM TB	50
11	SECAM TB	50
12	358 NR LVL	3
13	443 NR LVL	5

CXD2033D (PIP DYNAMIC)

Item No	Adjustment item	Data Amount
1	443DSP BGP	19
2	358DSP BGP	38
3	SE DSP BGP	19
4	443 LRD H	39
5	358 LRD H	41
6	443MN MPWH	213
7	358MN MPWH	174
8	443 ACC R.	52
9	358 ACC R.	42
10	443MN R RD	39
11	358MN R RD	27
12	FRAME PIP	10
13	FRAME MPX	3

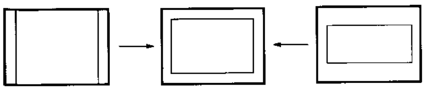
Typical Value (OSD based) when receiving PAL Philips pattern.

DEFLECTION SYSTEM ADJUSTMENT

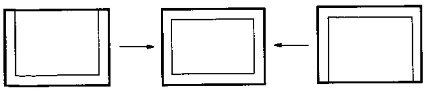
1. Enter into the service mode and select 'CRT Driver'.The 'CRT Driver CXA1840' adjustment menu will be displayed.
2. Select and adjust each item in order to get an optimum image.

Item No	Adjustment item	Data Amount
1	V POS	adj
2	V SIZE	adj
3	V LIN BAL	adj
4	V LIN	adj
5	V SCROLL	127
6	V ASP PAP	2
7	H POS	adj
8	H SIZE	adj
9	H PIN CUSH	adj
10	H TILT	adj
11	H UP COR	adj
12	H LOW COR	adj
13	AFC V BOW	adj
14	AFC V ANGLE	adj
15	V COMP	5
16	H COMP	0
17	WV CENT RF	144
18	WV AREA RF	36
19	W CENT VCR	160
20	W AREA VCR	20

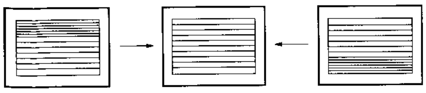
V SIZE



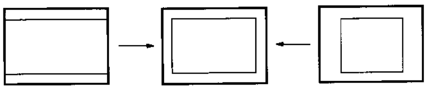
V POS



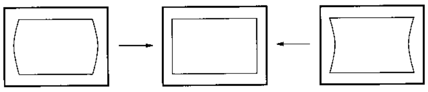
V LIN



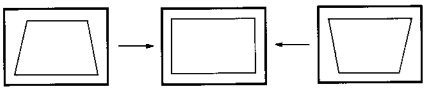
H SIZE



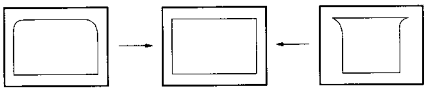
H PIN CUSH



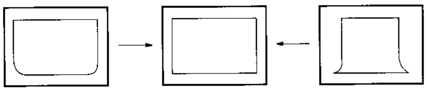
H TILT



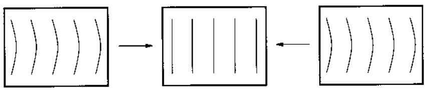
H UP COR



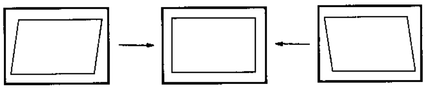
H LOWER COR



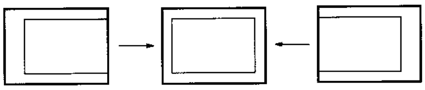
AFC V BOW



AFC V ANGLE



H POS

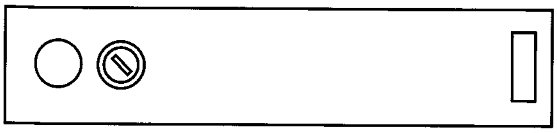


3. Press OK button to write the data.

If the menu display prevents viewing the screen while carrying out the adjustments, it can be removed by pressing 🔇 on the remote commander. Pressing 🔇 once again will restore the menu on screen.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

AGC Adjustment (IF Block)



- IF Block top side -

Fig. 4-5

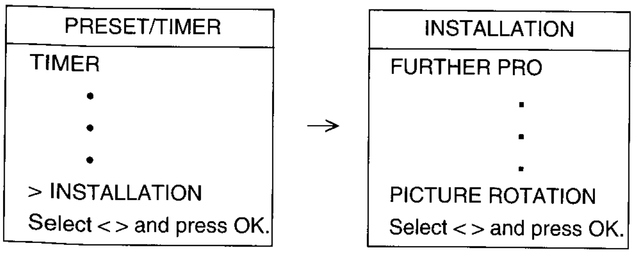
1. Receive an off-air signal.
2. Adjust the AGC VR so that there is no snow noise and cross-modulation visible on the screen.
3. Change the receiving channel and confirm status.

Sub Brightness Adjustment

1. Input a Phillips pattern.
2. Select 'RESET' from the menu to normalize the set.
3. Set the CONTRAST to minimum.
4. Press "Test" "Test" and 01 on the remote commander.
5. Adjust the BRIGHTNESS with the +/- buttons on the remote commander after selection of 'Sub Bright' so that the 0 IRE section of the gray scale is completely cut off and the 20 IRE section is only just visible on the screen.
6. Press 'MENU' and '0' twice to release Test mode 2.
7. Select 'RESET' from the menu to normalize the set.

Picture Rotation Adjustment

1. Input a PAL color bar signal.
2. Press the MENU button on the commander to get the menu on screen.
3. Press the ▲ and ▼ buttons of the commander and move > to PRESET/TIMER followed by INSTALLATION and PICTURE ROTATION.



PRESET/TIMER
TIMER
•
•
•
> INSTALLATION
Select < > and press OK.

→

INSTALLATION
FURTHER PRO
•
•
•
PICTURE ROTATION
Select < > and press OK.

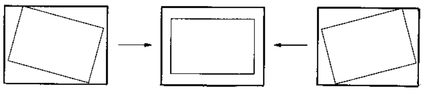


Fig. 4-6

4-3. TEST MODE 2:

Is available by pressing the Test button twice, OSD “TT” appears. The functions described below are available by pressing the two numbers. To release Test Mode 2, press 0, 10, 20 ... twice or switch the TV into Standby Mode. Pressing the two Local Control buttons (+ and –) during Power ON will also switch into "TT" mode.

In TT mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the menu to reappear . The Function is kept even when the menu is not displayed!!

00	Switch back to normal mode - TT mode off
01	Switch service menu on
02	Direct access to Noise reduction
03	Set Volume to 30%
04	Service Menu in "Service Mode"
05	Service Menu in "Production Mode"
06	Set Volume to 80%
07	Aging mode
08	Shipping condition (Production request) To ensure that all TV sets leave the Production with the same pressettings. Programme 1 is selected, AV IN is set to AV1, AV Out is set to TV Out, Volume and HP Volume is set to 35%, Resolution is set to high, Format is set to 4:3, Pip is set to Top Left position, Pip is switched off, TT mode is switched off, all analogue values are set to the reset setting, space Sound - Equalizer - Loudness = off, DNR off, Dig. Mode = 1, Wide Zoom Mode for 28W models, Menu Language Reset, Prog. Pointer table reset Non Interlace is allowed in Text mode.
09	Language reset. With this function the "Language Byte" in the NVM (Bank 0AAH Address 0DCH) is erased (set to 0FFH). The Language Menu appears now automatically when the TV set is switched ON as long as no new language is selected.
10	The TT number will be deleted. All numbers with 0 (10, 20, 30, 40, 50, 60, 70, 80, 90) will reset the TT number. A new number can be selected. TT display is kept
11	Direct access to Balance. With Cursor Up/Down the Balance can be controlled (w/o OSD, Menu display)
12	Direct access to Hue. With Cursor Up/Down the Hue can be controlled (w/o OSD, Menu display)
13	Dispaly of Software Version and TV set configuration
14	Production Info Display
15	Read factory setting from ROM (Program code) and store this data at Last Power Memory data location (The previous last power memory data is overwritten) AE3 has 3 packages of Analogue data: 1. Last Power memory data. This data is sent continiously to the corresponding IC's (TDA1839, SC, TDA6812) with this data the TV picture/sound appears. 2. Reset data. By presssing "Reset" in the menu this data is transfered from Reset Data location to the Last Power data location in the NVM. That means the Last Power Memory Data is overwritten by the Reset data last Power memory and Reset data is now the same. 3. Factory fixed data. Fixed data is held in the ROM code of the micro processor (ROM can't be changed)
16	Save actual Last Power Memory data at Reset Data location)The previous Reset data is overwritten)
15/16	With these two functions, it is possible to preset user defined Reset values (just TT16) or to preset factory defined Reset values (first TT15 then TT16)
17	This function presets the Labels for the AV sources: AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4.
18	Text possible On/Off selection of Text (toggle function)
19	Direct access to Stereo Separation With cursor Up/Down the Stereo separation can be adjusted (w/o OSD, Menu display)
20	see TT10
21	Picture Rotation automatic function : (-4) -> (+4) -> 0
22	Operating Timer and Error Monitor display
23	Direct access to Sub Brightness Adjustment With cursor Up/Down the Sub BRT can be adjusted (w/o OSD, Menu display)
24	Direct access to Sub Color. With Cursor Up/Down the Sub Color can be adjusted.
25	Status menu display (SubController, CXA1840 Status, Main Controller.
26	Text Character selection (Char set 06 ->West Europe)
27	Text Character selection (Char set 38 ->East Europe)
28	Text Character selection (Char set 40 ->West Europe) US English
29	Text Character selection (Char set 55 ->West Europe) Turkish
30	see TT10
31	Text Character selection Char set Russian
32	Text Character selection Char set Greek
33	Programme catching test (Programme catching can be released by "Menu command")
34	Multi PIP adjustment. Direct access to 3.58 horizontal write position. With Cursor Up/Down the 3.58 H write Pos can be adjusted (w/o OSD, Menu display).
35	Multi PIP adjustment. Direct access to 4.43 horizontal write position. With Cursor Up/Down the 4.43 H write Pos can be adjusted (w/o OSD, Menu display).
36	Mtx Register 112 = intern display clock
37	Mtx Register 112 = extern display clock

38	Automatic selection of Screen Modes: (not for S (4:3) Models. 4:3 -> Zoom -> Zoom up -> Zoom Center -> Zoom down -> Zoom Center -> smart -> (if Pal+ signal) PALPLUS -> wide.
39	Reset Programme Table (NVM Bank 0ACH) The sorting of programmes in "Programme Sorting Menu" is reset.
40	see TT10
41	no function
42	no function
43	no function
44	no function
45	Set NVM to Protect mode (Bank 0AEH Adr. 0FFH write with 0)
46	IR Channel Pressetting Mode. The channel pressetting can be done by a Special IR transmitter Sequence: TT46 -> -- PR Number select dispaly appears Select Prog. No from where the channel shall be stored. --> Now TV is waiting for IR sequence <-- --> If no IR transmission starts TT46 is released after 20 secs <-- !Note: When TT46 is active, any transmission will be interpreted as PROG data !
47	Direct access to Headphone Source Selection (Production use)
48	Direct access to AGC Adjustment (PWM) output.
49	The EEPROM Testbyte is erased. After Power OFF -> ON the complete EEPROM data (exept channel tables) is overwritten. EEPROM Protection byte is set to 0 protection mode
50	see TT10
51	Strobo mode is activated.
52	no function.
53	Photo mode test (Photo mode can be released by "Menu command").
54	Direct access to Velocity Modulation VM (Production use)
55	MTX Slicer Control "Low Pass" (only Sys L)
56	MTX Slicer Control "No Compensation"
57	Megatext Service Menu ON
58	MTX Small Framing Code Window
59	MTX Wide Framing Code Window
60	see TT10

61	Set Dolby default values.
62	ACI disable.
63	ACI enable.
64	Reset all IIC Slave commands (Production use)
65	Reset stored error codes in NVM.
66	Reset for PALplus local controller and Sub Controller.
67	Direct access to Headphone Volume. With cursor Up/Down the Headphone Volume can be controlled (w/o OSD, menu display) (Production use)
68	ignore errors.
69	reset ignore errors (show errors)
70	see TT10
71	Picture Rotation Function On/Off toggle.
72	Dolby register setting menu.
73	Megatext RGB textlevel one step decreased (max 3 steps down starting from E0h) (Production use)
74	Megatext RGB textlevel one step decreased (max 1 steps down starting from E0h) (Production use)
75	reserved
76	CXD 2030 Default data setting.
77	CXD 2031 Default data setting
78	CXD 2032 Default data setting
79	CXD 2033 Default data setting
80	see TT10
81	CXD 2033D Default data setting
82	CXD 2035 Default data setting
83	CXA 1526 Default data setting
84	CXA 1839 Default data setting
85	CXA 1840 Default data setting
86	TDA 9145 Default data setting
87	TDA 9160 Default data setting
88	no function
89	no function
90	see TT10

4-4. ERROR MONITOR AND DETECTION

In the menu 'Error Monitor', information about the error status of the set is displayed.

- Actual operating time
- Last five errors which are stored in the NVM.
- Actual error.

Error Monitor

Operating Time
000355 h 35min

Saved Errors
1. 40h=D1 Board
2.. 60h=Q Board
3. 70h=T Board
4. 00h=no error occured
5. 00h=no error occured

Actual Error
-> 00h=no error occured

to reset the NVM press 'TT' 65

Additionally the Error Reader can be connected to the service connector to read out the actual errors.

The device check itself is active while the TV set is running out of stand-by mode. The devices are checked by sending an I^2C start sequence and if there is no acknowledgement back from the devices it is regarded as an error. Each device is checked three times and if at every attempt there is no reply from the relevant device an error is given. To read the error codes press 'TT' followed by 22 on the commander to view the Error Monitor menu.

To reset the error codes in the NVM press 'TT' followed by 65 on the remote commander.

TABLE OF ERROR CODES

Error Code	Device	Description	Board
000h	no device	no error has occured	-
001h	IIC 1 and IIC 2	IIC 1 and IIC 2 blockaded	-
002h	IIC 1	IIC1 is blockaded	-
003h	IIC 2	IIC 2 is blockaded	-
010h	A Board	A Board is defective	-
020h	A1 Board	A1 Board is defective	-
030h	BX-Board (B,B1,B2)	B, B1, or B2 Board is defective	-
040h	D1 Board	D1 Board defect	-
050h	J Board	J Board defect	-
060h	Q Board	Q Board defect	-
070h	T Board	T Board defect	-
011h	CXP85332	No response from the Subcontroller	A
012h	ST24C16	No response from the NVM	A
013h	SDA5273	No response from the Megatext IC	A
014h	TDA6812	No response from the Sound Processor	A
015h	SAA7283	No response from the Nicam Decoder	A
016h	UV916H	No response from the Main Tuner	A
017h	CXA1839Q	No response from the Video Controller	A
018h	CXA1840	No response from the CRT Driver	A
019h	RGB8443	No response from RGB/YUV	A
021h	TDA6622	Audio processor of the Center and Surround channel in the case of Dolby Prologic does not respond.	A1
022h	TDA7317	No response from the Equalizer.	A1
031h	CXD2030R	No response from the Digital Video Processor.	B/B1
032h	CXD2031R	No response from the Twin Picture IC.	B1
033h	CXD2032R	No response from the Digital Sampling Rate Converter.	B/B1
034h	CXD2033R	No response from the Picture in Picture IC.	B
035h	CXD2035R	No response from the Aspect Converter.	B/B1
036h	TDA9160	No response from the Chroma Decoder.	B/B1
037h	TDA9145	No response from the Chroma Decoder (on French models only.)	B2
041h	CXA1526	No response from the Convergence IC.	D1
051h	CXA1855	No response from the AV-Switch	J
061h	83C65202	No response from the Local Controller.	Q
071h	UV1316/TSA5526	No response from the Subtuner.	T
072h	CXA1875	No response from the Port Expander.	T

4-5. LED Error Blinking

In addition to the Error Monitor facility there is an additional error indicator which indicates the most important errors also in the case of IIC error and Megatext error in opposition to the error monitor.
The error is recorded by counting the number of times that LED B blinks. This facility also works while in stand-by mode.

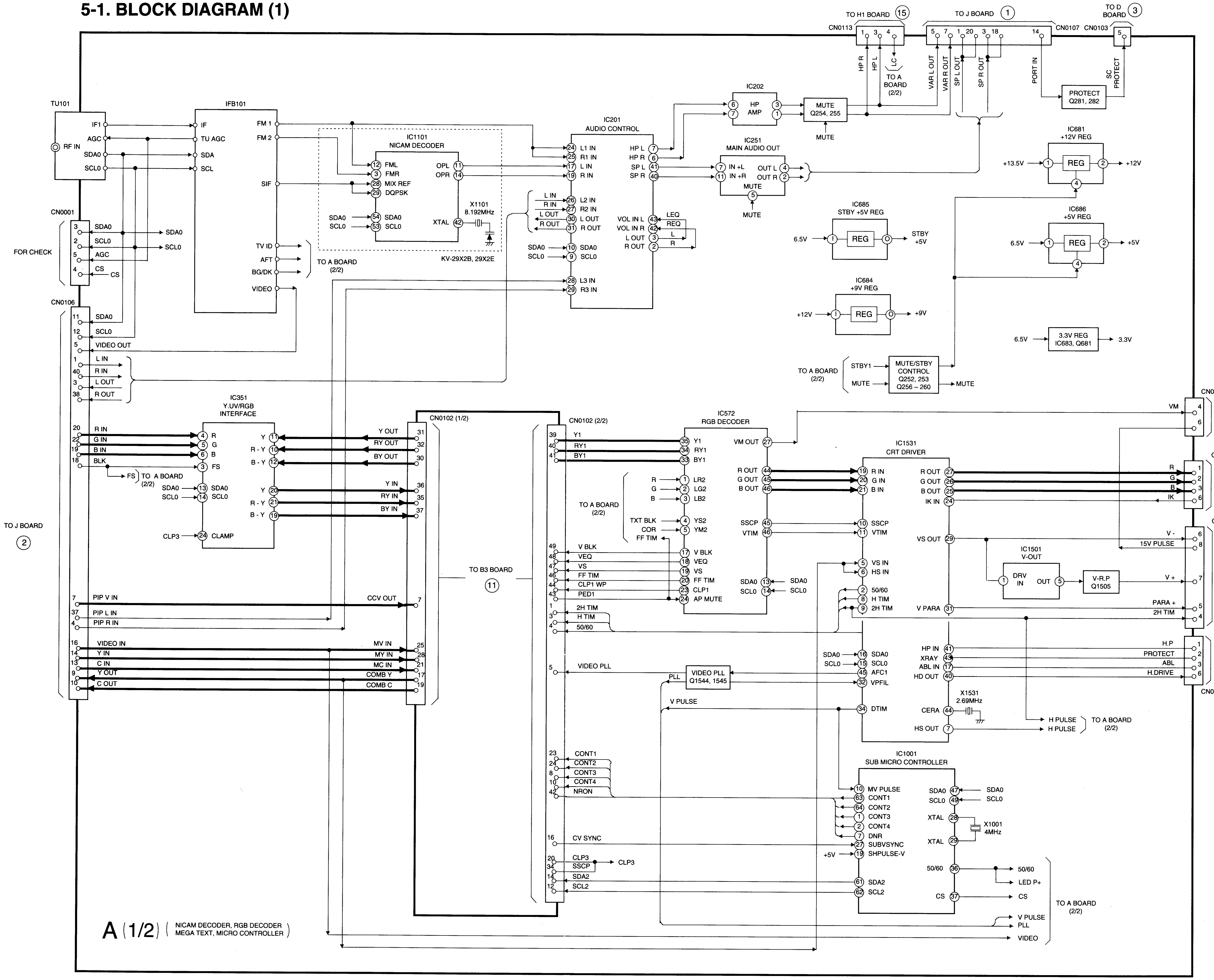
LED Error Code.

Error	number of LED B blinking	Description	Board
0	1	general IIC error	-
1	2	ST24C16 NVM error	A
2	3	CXP85332 subcontroller error	A
3	4	CXD2030R error of Digital Video Processor	B/B1
4	5	CXD2032R error of Digital Sampling Rate Converter	B/B1
5	6	CXD2035R error of Aspect Converter	B/B1
6	7	TDA1839 error of Video Controller	A
7	8	TDA1840 error of CRT Driver	A
8	9	CXA1855 error of AV switch	J
9	11	SDA5273 error of Megatext	A
10	12	TDA6812 error of Sound Processor	A
11	16	V-Protection (In this case the TV set is switched of immediately)	-

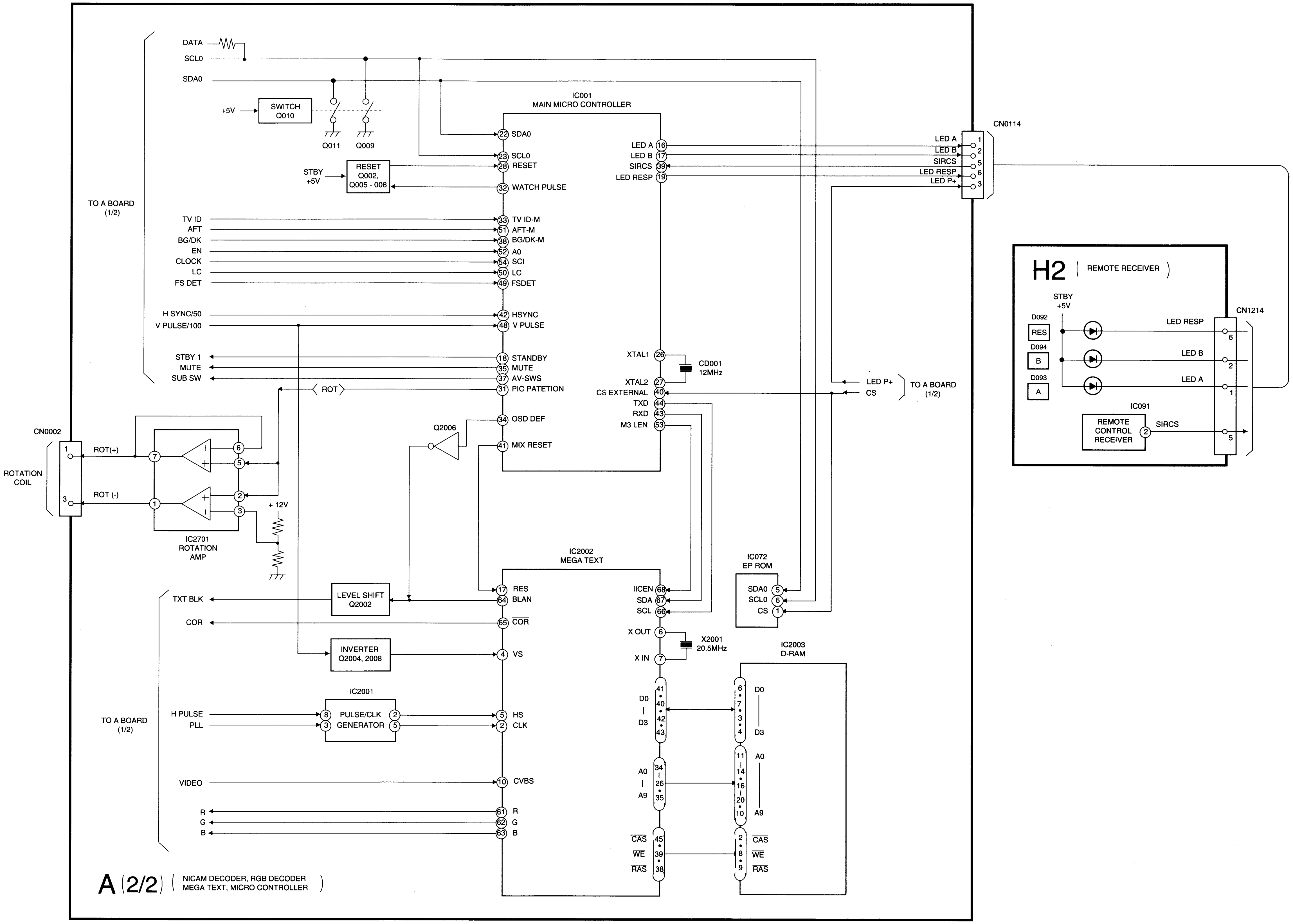
SECTION 5

DIAGRAMS

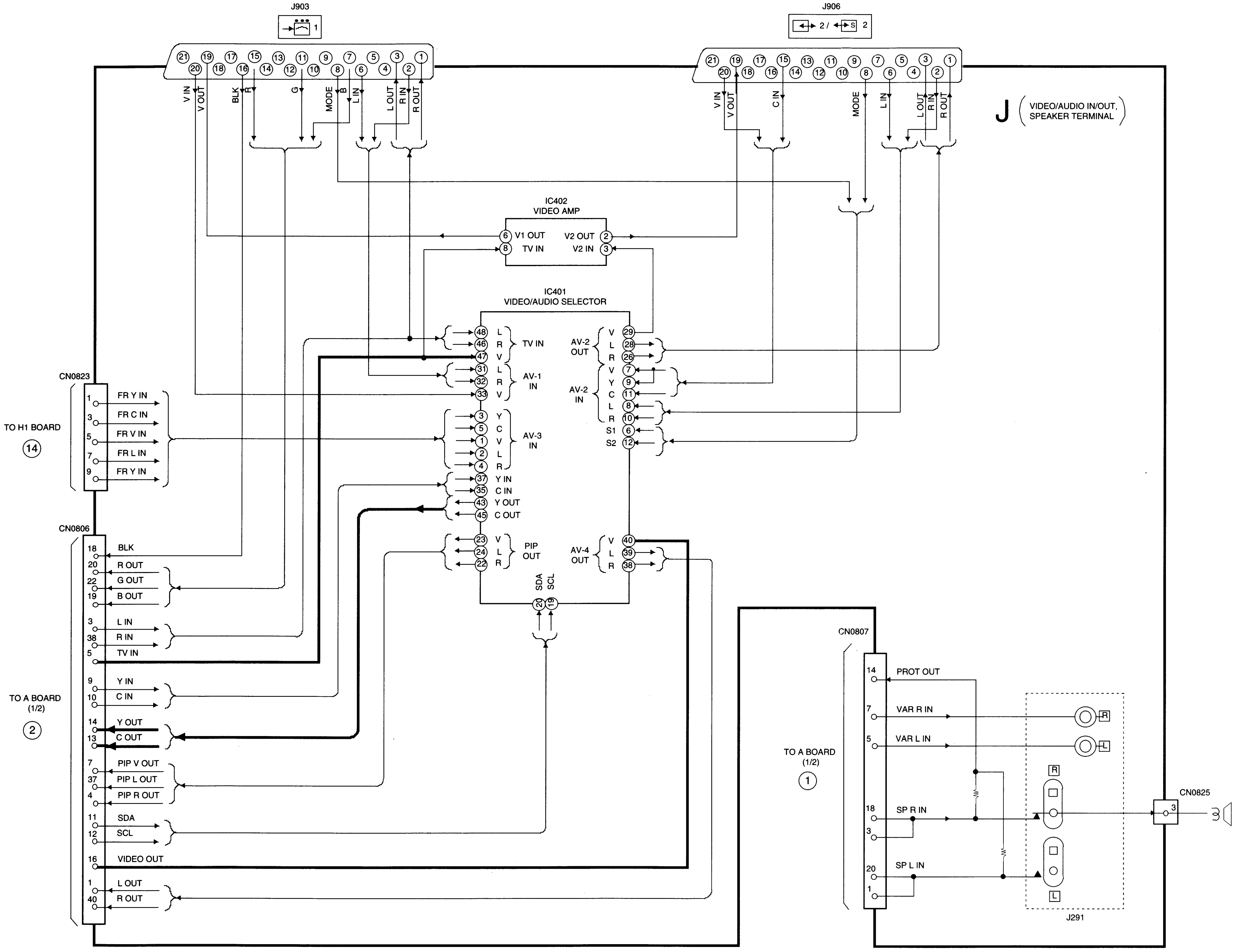
5-1. BLOCK DIAGRAM (1)


TU101
IF1
AGC
SDA0
SCL0
RF IN
IFB101
IF
TU AGC
SDA
SCL
FM 1
FM 2
SIF
TV ID
AFT
BG/DK
VIDEO
TO A BOARD (2/2)
IC1101 NICAM DECODER
FML
FMR
MIX REF
DQPSK
OPL
OPR
X1101 8.192MHz
XTAL
SDA0
SCL0
KV-29X2B, 29X2E
IC201 AUDIO CONTROL
L1 IN
R1 IN
L IN
R IN
L2 IN
R2 IN
L OUT
R OUT
SDA0
SCL0
L3 IN
R3 IN
HP L
HP R
SP L
SP R
VOL IN L
VOL IN R
LEQ
REQ
IC202 HP AMP
MUTE Q254, 255
MUTE
IC251 MAIN AUDIO OUT
IN +L
IN +R
OUT L
OUT R
MUTE
TO H1 BOARD ⑮
CN0113
HP R
HP L
TO A BOARD (2/2)
TO J BOARD ①
CN0107
VAR L OUT
VAR R OUT
SP L OUT
SP R OUT
PORT IN
TO D BOARD ③
CN0103
SC PROTECT
PROTECT Q281, 282
IC681 +12V REG
+13.5V
REG
+12V
IC685 STBY +5V REG
6.5V
STBY +5V
IC686 +5V REG
+5V
IC684 +9V REG
+12V
+9V
3.3V REG IC683, Q681
3.3V
TO A BOARD (2/2)
STBY1
MUTE
MUTE/STBY CONTROL Q252, 253 Q256 ~ 260
CN0001
FOR CHECK
SDA0
SCL0
AGC
CS
CN0106
VIDEO OUT
L IN
R IN
L OUT
R OUT
IC351 Y.UV/RGB INTERFACE
R IN
G IN
B IN
BLK
FS
TO A BOARD (2/2)
SDA0
SCL0
CLP3
CLAMP
Y
R - Y
B - Y
Y OUT
RY OUT
BY OUT
Y IN
RY IN
BY IN
TO J BOARD ②
PIP V IN
PIP L IN
PIP R IN
CCV OUT
VIDEO IN
Y IN
C IN
Y OUT
C OUT
MV IN
MY IN
MC IN
COMB Y
COMB C
CN0102 (1/2)
TO B3 BOARD ⑪
CN0102 (2/2)
Y1
RY1
BY1
V BLK
VEQ
VS
FF TIM
CLP1 WP
PED1
2H TIM
H TIM
50/60
VIDEO PLL
CONT1
CONT2
CONT3
CONT4
NRON
CV SYNC
CLP3
SSCP
SDA2
SCL2
IC572 RGB DECODER
LR2
LG2
LB2
YS2
YM2
TO A BOARD (2/2)
TXT BLK
COR
FF TIM
VM OUT
R OUT
G OUT
B OUT
SSCP
VTIM
CLP1
AP MUTE
VIDEO PLL Q1544, 1545
PLL
V PULSE
IC1531 CRT DRIVER
R IN
G IN
B IN
IK IN
VS OUT
VS IN
HS IN
50/60
H TIM
2H TIM
V PARA
SDA0
SCL0
AFC1
VPFIL
DTIM
HP IN
XRAY
ABL IN
HD OUT
X1531 2.69MHz
CERA
HS OUT
H PULSE
TO A BOARD (2/2)
IC1501 V-OUT
DRV IN
OUT
V-R.P Q1505
CN0115
VM
TO VM BOARD ⑮
CN0111
TO C BOARD ⑦
IK
CN0105
V -
15V PULSE
V +
PARA +
2H TIM
TO D BOARD ⑧
H.P
PROTECT
ABL
H.DRIVE
TO D BOARD ⑨
CN0104
IC1001 SUB MICRO CONTROLLER
MV PULSE
CONT1
CONT2
CONT3
CONT4
DNR
SUBVSYNC
SHPULSE-V
+5V
SDA2
SCL2
SDA0
SCL0
XTAL
X1001 4MHz
50/60
CS
LED P+
V PULSE
PLL
VIDEO
TO A BOARD (2/2)
A (1/2) (NICAM DECODER, RGB DECODER MEGA TEXT, MICRO CONTROLLER)

BLOCK DIAGRAM (2)

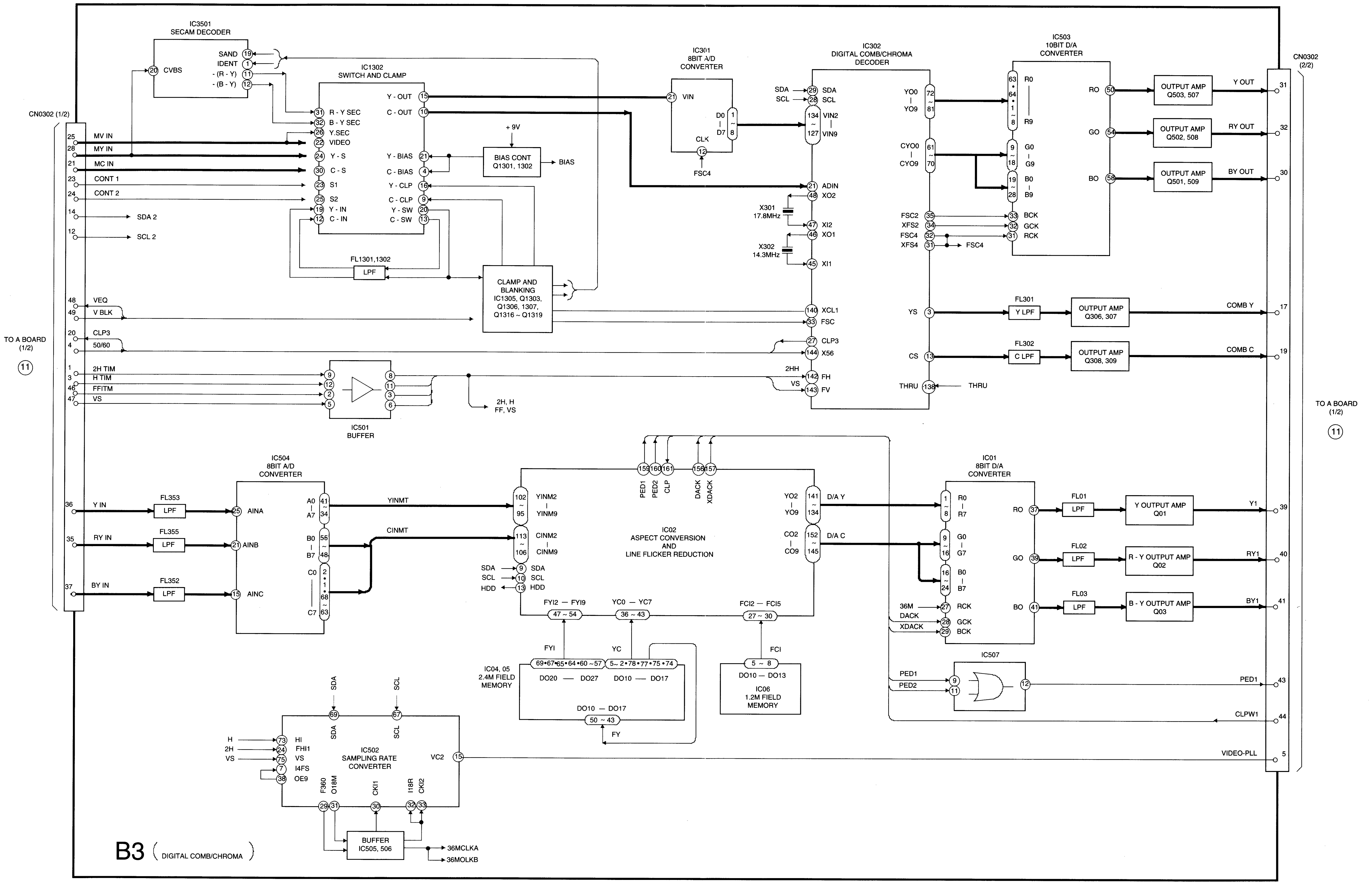

DATA
SCL0
SDA0
+5V
SWITCH Q010
Q011
Q009
STBY +5V
RESET Q002, Q005 - 008
IC001 MAIN MICRO CONTROLLER
22 SDA0
23 SCL0
28 RESET
32 WATCH PULSE
TO A BOARD (1/2)
TV ID
AFT
BG/DK
EN
CLOCK
LC
FS DET
33 TV ID-M
51 AFT-M
38 BG/DK-M
52 A0
54 SCI
50 LC
49 FSDET
H SYNC/50
V PULSE/100
42 HSYNC
48 V PULSE
STBY 1
MUTE
SUB SW
18 STANDBY
35 MUTE
37 AV-SWS
31 PIC PATETION
ROT
34 OSD DEF
41 MIX RESET
Q2006
LED A 16
LED B 17
SIRCS 39
LED RESP 19
XTAL1 26
CD001 12MHz
XTAL2 27
CS EXTERNAL 40
TXD 44
RXD 43
M3 LEN 53
CN0114
LED A 1
LED B 2
SIRCS 5
LED RESP 6
LED P+ 3
LED P+
CS
TO A BOARD (1/2)
H2 (REMOTE RECEIVER)
STBY +5V
D092 RES
D094 B
D093 A
LED RESP
LED B
LED A
CN1214
6
2
1
5
IC091 REMOTE CONTROL RECEIVER
2 SIRCS
CN0002
ROTATION COIL
1 ROT(+)
3 ROT (-)
IC2701 ROTATION AMP
+ 12V
IC2002 MEGA TEXT
17 RES
64 BLAN
65 COR
4 VS
5 HS
2 CLK
10 CVBS
61 R
62 G
63 B
IICEN 68
SDA 67
SCL 66
X OUT 6
X2001 20.5MHz
X IN 7
IC072 EP ROM
SDA0 5
SCL0 6
CS 1
IC2003 D-RAM
D0 | D3 41 40 42 43
6 7 3 4 D0 D3
A0 | A9 34 26 35
11 14 16 20 10 A0 A9
CAS 45 WE 39 RAS 38
2 8 9 CAS WE RAS
TXT BLK
LEVEL SHIFT Q2002
COR
INVERTER Q2004, 2008
IC2001 PULSE/CLK GENERATOR
H PULSE 8 2
PLL 3 5
TO A BOARD (1/2)
VIDEO
R
G
B
A (2/2) (NICAM DECODER, RGB DECODER MEGA TEXT, MICRO CONTROLLER)

BLOCK DIAGRAM (3)

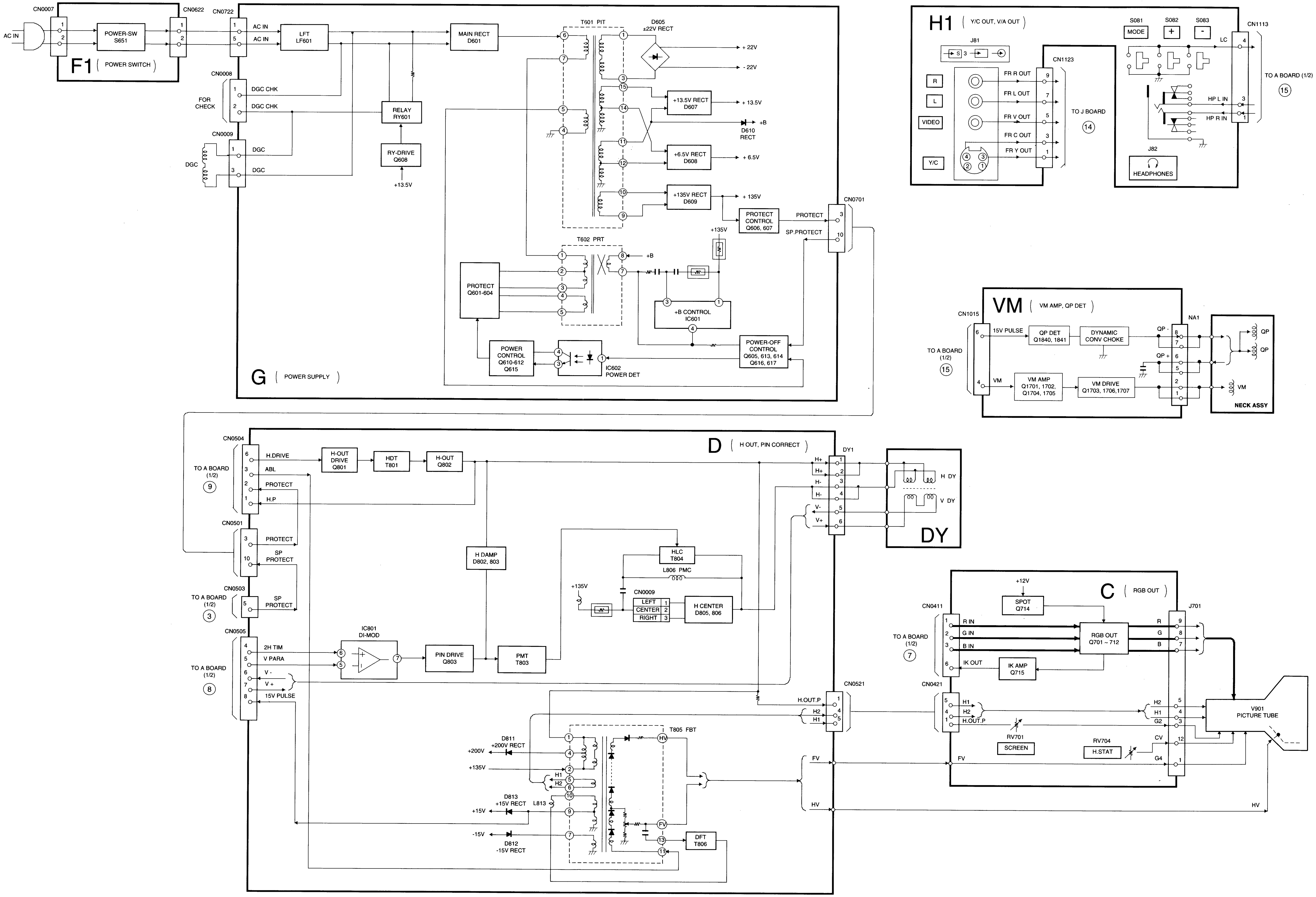

J903
J906
J (VIDEO/AUDIO IN/OUT, SPEAKER TERMINAL)
V IN
V OUT
BLK
R
G
MODE
B
L IN
L OUT
R IN
R OUT
C IN
IC402
VIDEO AMP
V1 OUT
TV IN
V2 OUT
V2 IN
IC401
VIDEO/AUDIO SELECTOR
TV IN
AV-1 IN
AV-3 IN
AV-2 OUT
AV-2 IN
S1
S2
Y IN
C IN
Y OUT
C OUT
PIP OUT
AV-4 OUT
SDA
SCL
CN0823
TO H1 BOARD
⑭
FR Y IN
FR C IN
FR V IN
FR L IN
FR Y IN
CN0806
TO A BOARD (1/2)
②
BLK
R OUT
G OUT
B OUT
L IN
R IN
TV IN
Y IN
C IN
Y OUT
C OUT
PIP V OUT
PIP L OUT
PIP R OUT
SDA
SCL
VIDEO OUT
L OUT
R OUT
CN0807
TO A BOARD (1/2)
①
PROT OUT
VAR R IN
VAR L IN
SP R IN
SP L IN
J291
CN0825

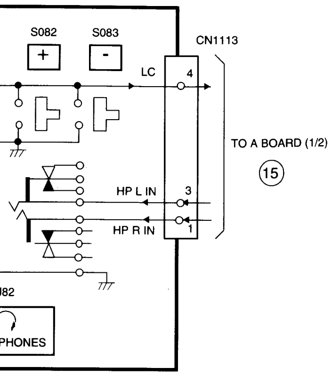
TO A B
(1/

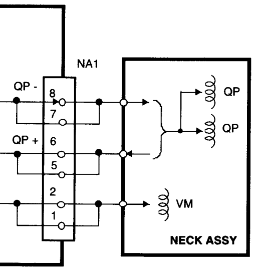
BLOCK DIAGRAM (4)

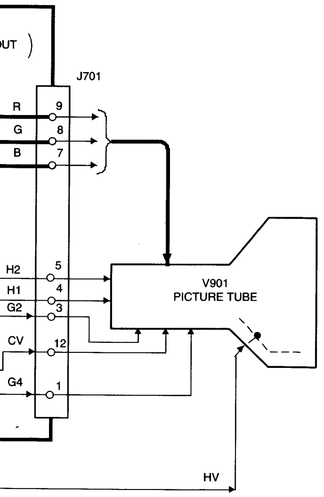

IC3501
SECAM DECODER
CVBS
SAND
IDENT
- (R - Y)
- (B - Y)
IC1302
SWITCH AND CLAMP
R - Y SEC
B - Y SEC
Y.SEC
VIDEO
Y - S
C - S
S1
S2
Y - IN
C - IN
Y - OUT
C - OUT
Y - BIAS
C - BIAS
Y - CLP
C - CLP
Y - SW
C - SW
+ 9V
BIAS CONT
Q1301, 1302
BIAS
FL1301,1302
LPF
CLAMP AND
BLANKING
IC1305, Q1303,
Q1306, 1307,
Q1316 ~ Q1319
CN0302 (1/2)
MV IN
MY IN
MC IN
CONT 1
CONT 2
SDA 2
SCL 2
VEQ
V BLK
CLP3
50/60
2H TIM
H TIM
FFITM
VS
TO A BOARD
(1/2)
⑪
IC501
BUFFER
2H, H
FF, VS
IC301
8BIT A/D
CONVERTER
VIN
D0
D7
CLK
FSC4
IC302
DIGITAL COMB/CHROMA
DECODER
SDA
SCL
VIN2
VIN9
ADIN
XO2
XI2
XO1
XI1
X301
17.8MHz
X302
14.3MHz
XCL1
FSC
CLP3
X56
2HH
FH
VS
FV
YO0
YO9
CYO0
CYO9
FSC2
XFS2
FSC4
XFS4
YS
CS
THRU
IC503
10BIT D/A
CONVERTER
R0
R9
G0
G9
B0
B9
BCK
GCK
RCK
RO
GO
BO
OUTPUT AMP
Q503, 507
OUTPUT AMP
Q502, 508
OUTPUT AMP
Q501, 509
Y OUT
RY OUT
BY OUT
FL301
Y LPF
FL302
C LPF
OUTPUT AMP
Q306, 307
OUTPUT AMP
Q308, 309
COMB Y
COMB C
CN0302
(2/2)
TO A BOARD
(1/2)
⑪
IC504
8BIT A/D
CONVERTER
Y IN
RY IN
BY IN
FL353
FL355
FL352
LPF
AINA
AINB
AINC
A0
A7
B0
B7
C0
C7
YINMT
CINMT
IC02
ASPECT CONVERSION
AND
LINE FLICKER REDUCTION
YINM2
YINM9
CINM2
CINM9
SDA
SCL
HDD
PED1
PED2
CLP
DACK
XDACK
YO2
YO9
CO2
CO9
D/A Y
D/A C
FYI2 — FYI9
YC0 — YC7
FCI2 — FCI5
FYI
YC
FCI
FY
IC04, 05
2.4M FIELD
MEMORY
DO20 — DO27
DO10 — DO17
IC06
1.2M FIELD
MEMORY
DO10 — DO13
IC01
8BIT D/A
CONVERTER
R0
R7
G0
G7
B0
B7
36M
DACK
XDACK
RCK
GCK
BCK
FL01
FL02
FL03
Y OUTPUT AMP
Q01
R - Y OUTPUT AMP
Q02
B - Y OUTPUT AMP
Q03
Y1
RY1
BY1
IC507
PED1
PED2
CLPW1
VIDEO-PLL
IC502
SAMPLING RATE
CONVERTER
H
2H
VS
HI
FHI1
I4FS
OE9
VC2
F360
O18M
CKI1
I18R
CKI2
BUFFER
IC505, 506
36MCLKA
36MOLKB
B3 (DIGITAL COMB/CHROMA)

BLOCK DIAGRAMS (5)

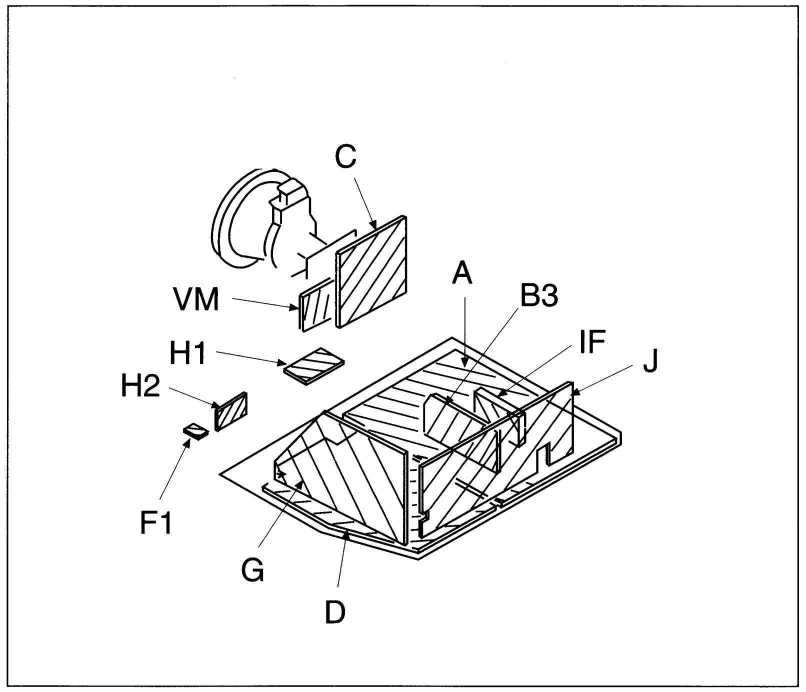

F1 (POWER SWITCH)
CN0007
AC IN
POWER-SW S651
CN0622
CN0722
AC IN
AC IN
LFT LF601
MAIN RECT D601
CN0008
FOR CHECK
DGC CHK
DGC CHK
RELAY RY601
RY-DRIVE Q608
+13.5V
CN0009
DGC
DGC
DGC
T601 PIT
D605 ±22V RECT
+ 22V
- 22V
+13.5V RECT D607
+ 13.5V
+B
D610 RECT
+6.5V RECT D608
+ 6.5V
+135V RECT D609
+ 135V
PROTECT CONTROL Q606, 607
PROTECT
SP.PROTECT
CN0701
+135V
T602 PRT
+B
PROTECT Q601-604
+B CONTROL IC601
POWER CONTROL Q610-612 Q615
IC602 POWER DET
POWER-OFF CONTROL Q605, 613, 614 Q616, 617
G (POWER SUPPLY)
D (H OUT, PIN CORRECT)
CN0504
TO A BOARD (1/2) ⑨
H.DRIVE
ABL
PROTECT
H.P
H-OUT DRIVE Q801
HDT T801
H-OUT Q802
CN0501
PROTECT
SP PROTECT
CN0503
TO A BOARD (1/2) ③
SP PROTECT
CN0505
TO A BOARD (1/2) ⑧
2H TIM
V PARA
V -
V +
15V PULSE
IC801 DI-MOD
PIN DRIVE Q803
PMT T803
H DAMP D802, 803
HLC T804
L806 PMC
+135V
CN0009
LEFT
CENTER
RIGHT
H CENTER D805, 806
DY1
H+
H+
H-
H-
V-
V+
H DY
V DY
DY
CN0521
H.OUT.P
H2
H1
T805 FBT
D811 +200V RECT
+200V
+135V
H1
H2
D813 +15V RECT
L813
+15V
-15V
D812 -15V RECT
DFT T806
FV
HV
H1 (Y/C OUT, V/A OUT)
J81
R
L
VIDEO
Y/C
FR R OUT
FR L OUT
FR V OUT
FR C OUT
FR Y OUT
CN1123
TO J BOARD ⑭
S081 MODE
S082 +
S083 -
CN1113
LC
HP L IN
HP R IN
J82
HEADPHONES
TO A BOARD (1/2) ⑮
VM (VM AMP, QP DET)
CN1015
TO A BOARD (1/2) ⑮
15V PULSE
QP DET Q1840, 1841
DYNAMIC CONV CHOKE
VM
VM AMP Q1701, 1702, Q1704, 1705
VM DRIVE Q1703, 1706,1707
QP -
QP +
NA1
QP
QP
VM
NECK ASSY
C (RGB OUT)
+12V
SPOT Q714
CN0411
TO A BOARD (1/2) ⑦
R IN
G IN
B IN
IK OUT
RGB OUT Q701 ~ 712
IK AMP Q715
J701
R
G
B
CN0421
H1
H2
H.OUT.P
RV701 SCREEN
RV704 H.STAT
H2
H1
G2
CV
G4
FV
V901 PICTURE TUBE
HV







5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power ¼ W

- -▨- : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth - ground.
- ⏚ : earth - chassis.
- # : no mounted.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

Note : Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Reference information

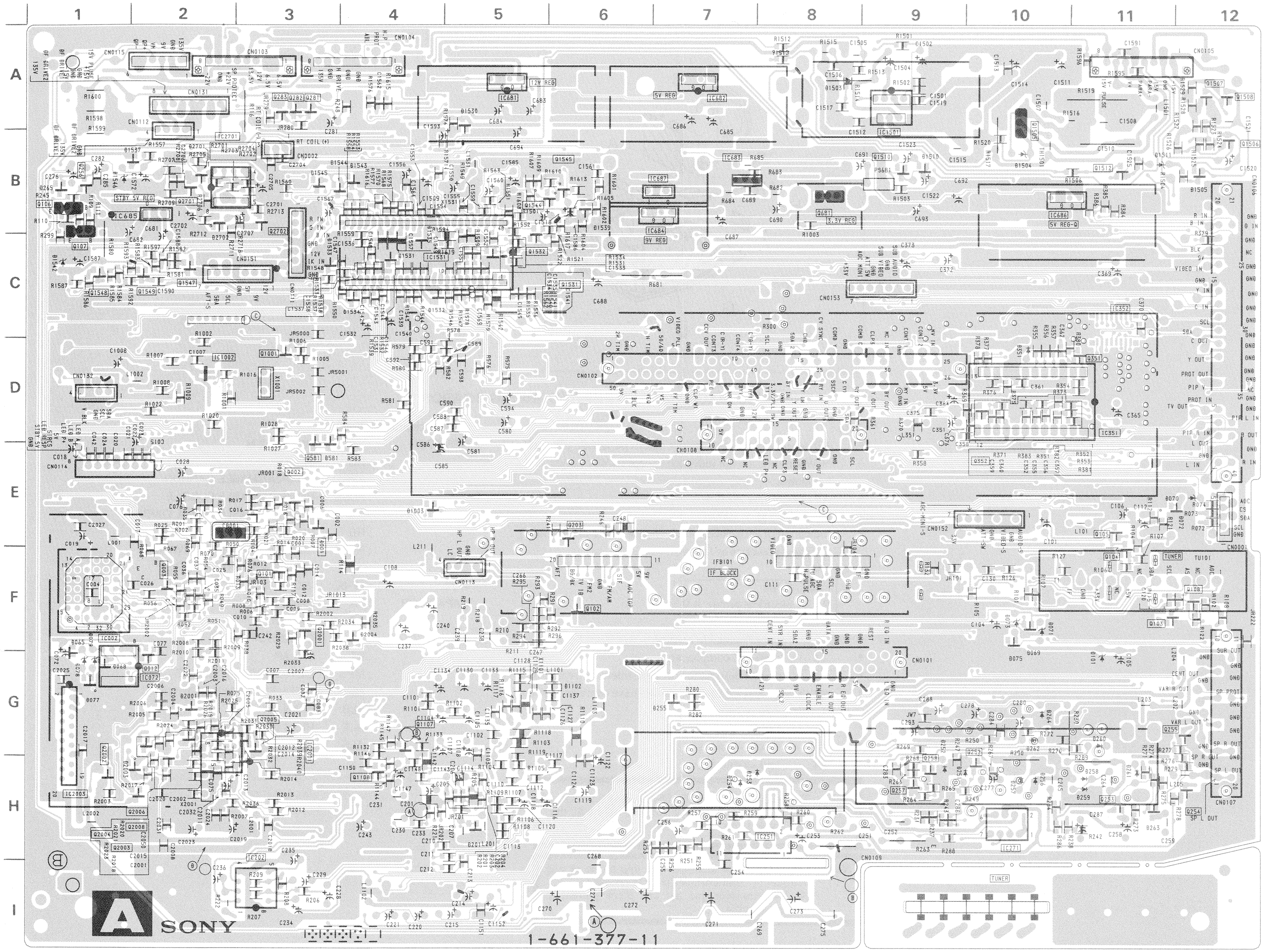
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ⨯	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- ━ : B+ bus.
- ➡ : signal path. (RF)

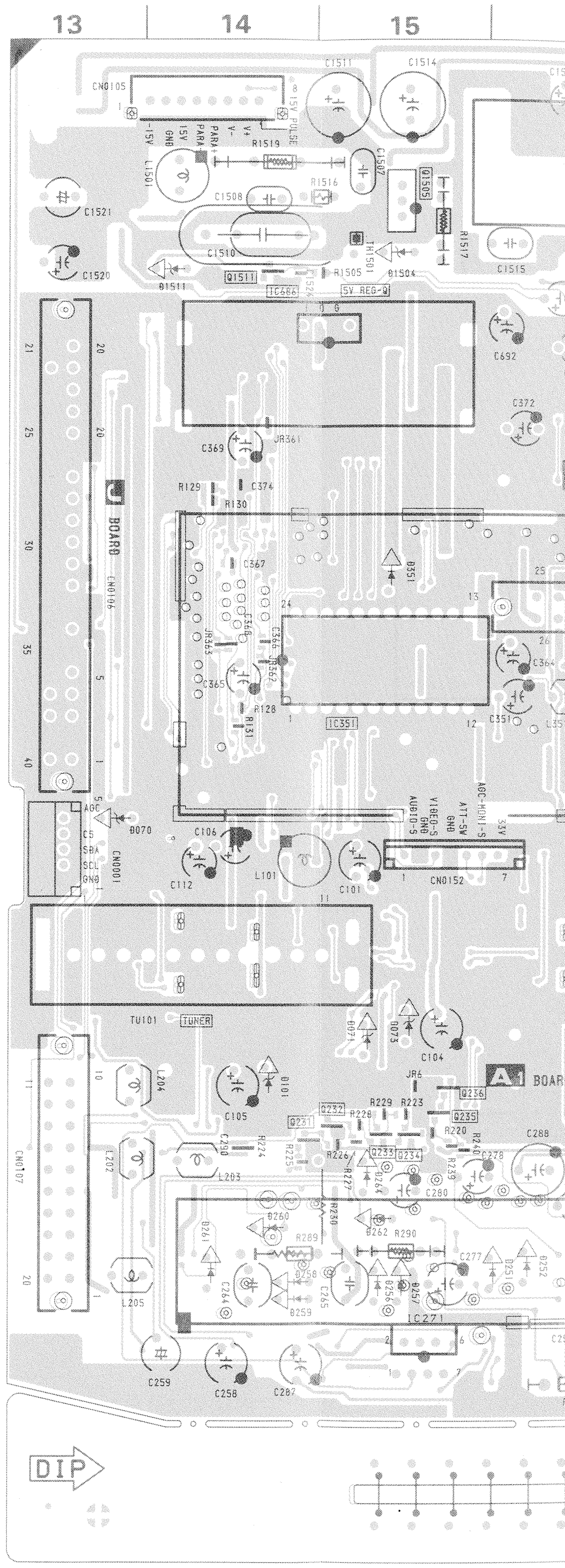
A

NICAM DECODER, RGB DECODER
MEGA TEXT, MICRO CONTROLLER

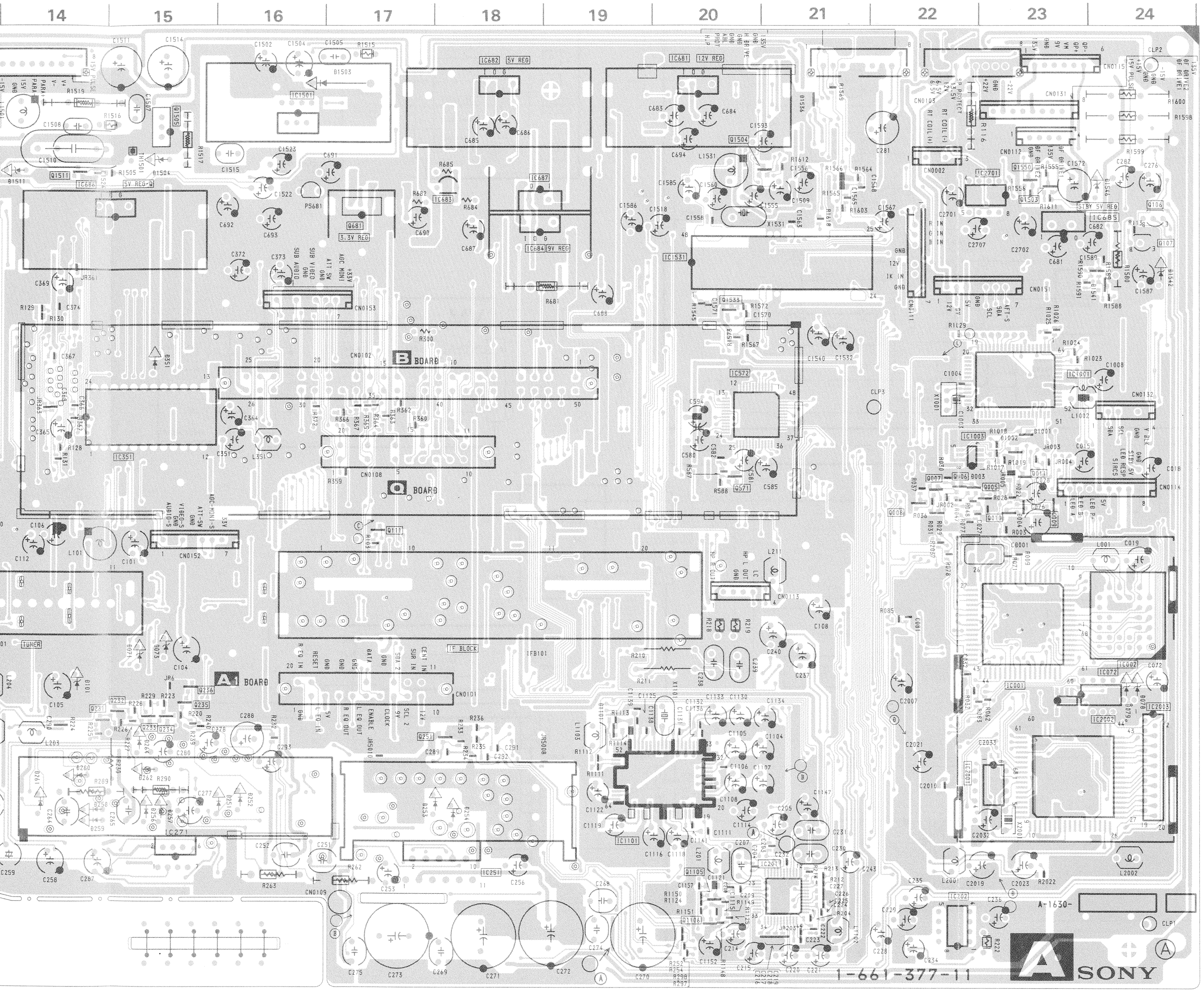
A Board <Conductor Side>


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
A
SONY
1-661-377-11
CN0115
CN0103
CN0104
CN0105
CN0102
CN0108
CN0101
CN0107
CN0109
CN0152
CN0153
CN0114
CN0132
12V REG
5V REG
9V REG
3.3V REG
5V REG-Q
STBY 5V REG
IF BLOCK
TUNER
TU101
IFB101

A Board <Component Side>


13
14
15
J BOARD
CN0105
CN0152
TU101
TUNER
A-1 BOARD
DIP

omponent Side>



A BOARD *MARK

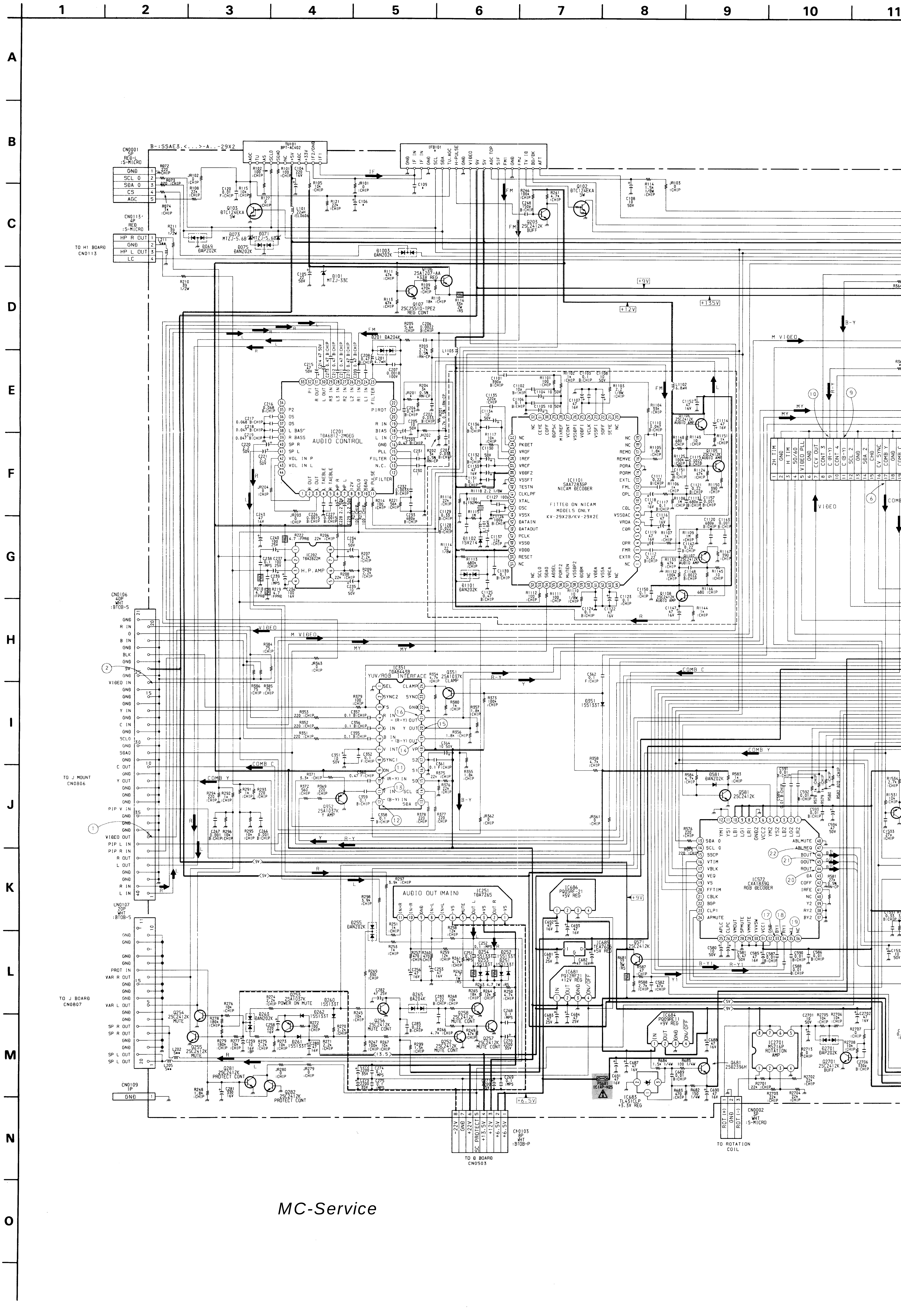
Ref. No. \ Model	29X2A	29X2B	29X2D	29X2E
C106	4.7MF 50V	100MF 16V	4.7MF 50V	4.7MF 50V
C109	—	15PF	—	—
IFB101	IFH-389WE	IFH-389FX	IFH-389WE	IFH-389WE
JR201	0:CHIP	—	0:CHIP	—
JR202	0:CHIP	—	0:CHIP	—
L1103	—	68UH	—	68UH
R364	0:CHIP	—	0:CHIP	0:CHIP
R365	0:CHIP	—	0:CHIP	0:CHIP
R366	0:CHIP	—	0:CHIP	0:CHIP
R367	—	0:CHIP	—	—

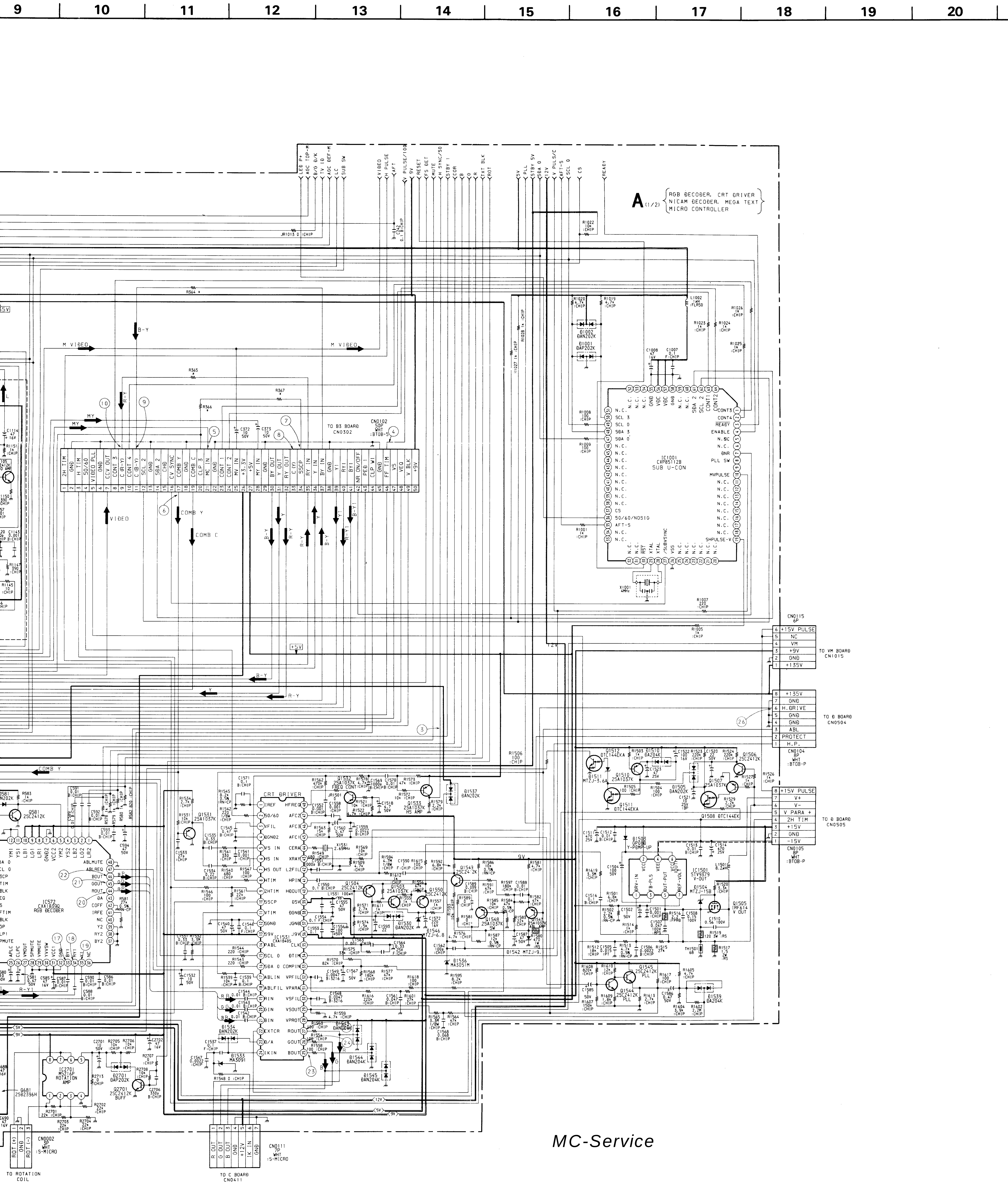
A BOARD

IC	
IC001	F-23
IC072	G-2
IC201	H-21
IC202	H-3
IC251	H-8
IC351	D-11
IC572	D-20
IC681	A-5
IC683	B-7
IC684	B-7
IC685	B-1
IC686	B-10
IC1001	D-23
IC1101	H-19
IC1501	A-9
IC1531	C-4
IC2001	G-3
IC2002	G-24
IC2003	H-1
IC2701	B-2

TRANSISTOR	
Q002	E-3
Q005	E-23
Q006	E-22
Q007	E-22
Q008	E-22
Q009	E-23
Q010	E-23
Q011	E-23
Q102	F-6
Q103	F-11
Q106	B-1
Q107	C-1
Q203	E-6
Q252	G-10
Q253	H-11
Q254	H-12
Q255	G-12
Q256	B-1
Q257	H-9
Q258	G-9
Q281	A-3
Q282	A-3
Q351	D-11
Q352	E-10
Q571	E-20
Q581	E-3
Q681	B-8
Q1001	D-3
Q1105	H-20
Q1106	I-20
Q1107	G-4
Q1108	H-4
Q1503	B-23
Q1504	B-20
Q1505	B-10
Q1506	B-12
Q1507	A-12
Q1508	A-12
Q1510	B-9
Q1511	B-14
Q1512	B-11
Q1531	C-6
Q1532	C-5
Q1533	C-20
Q1544	B-5
Q1545	B-6
Q1547	C-2
Q1548	C-1
Q1549	C-2
Q1550	B-23
Q2001	F-3
Q2002	G-1
Q2004	H-1
Q2005	G-3
Q2006	H-2
Q2008	H-2
Q2701	B-2

DIODE	
D001	E-3
D003	E-23
D004	E-23
D068	G-1
D069	F-10
D071	F-10
D073	F-10
D075	F-10
D077	G-1
D078	G-1
D079	F-1
D101	F-11
D201	H-5
D251	H-9
D252	G-9
D253	H-7
D254	H-7
D255	G-7
D260	G-11
D261	H-11
D262	G-10
D263	H-11
D265	B-1
D351	D-10
D581	E-3
D1001	D-23
D1002	D-23
D1003	E-4
D1101	G-19
D1102	G-6
D1503	A-8
D1504	B-10
D1505	B-12
D1510	B-9
D1511	B-11
D1530	A-5
D1533	C-3
D1534	C-4
D1536	A-21
D1537	B-2
D1539	B-6
D1542	C-1
D1543	B-4
D1544	B-3
D1545	B-3
D1546	B-1
D2001	G-2
D2004	F-4
D2701	B-2


B-:SSAE3.<...>-A...-29X2
TU101 BPT-AC402
IFB101
CN0001 5P RED-L :S-MICRO
GND
SCL 0
SDA 0
CS
AGC
CN0113 4P RED :S-MICRO
HP R OUT
GND
HP L OUT
LC
TO H1 BOARD CN0113
Q103 DTC124EKA SW
Q102 DTC124EKA SW
Q203 2SC2412K BUFF
Q106 2SA1207-AA +33V REG
Q107 2SC2551Q-TPE2 REG CONT
+9V
+12V
+135V
IC201 TDA6812-2M0EG AUDIO CONTROL
IC202 TDA2822M H.P. AMP
IC1101 SAA7283GP NICAM DECODER
FITTED ON NICAM MODELS ONLY KV-29X2B/KV-29X2E
M VIDEO
MY
B-Y
R-Y
VIDEO
COMB C
COMB Y
IC351 TDA8443B YUV/RGB INTERFACE
Q351 2SA1037K CLAMP
Q352 2SA1037K Y AMP
CN0106 40P WHT :BTOB-S
TO J MOUNT CN0806
CN0107 20P WHT :BTOB-S
TO J BOARD CN0807
CN0109 1P
IC251 TDA7265 AUDIO OUT (MAIN)
Q253 2SA1037K POWER ON MUTE
Q254 2SC2412K MUTE
Q255 2SC2412K MUTE
Q256 2SC2412K MUTE CONT
Q257 2SC2412K MUTE CONT
Q258 2SC2412K MUTE CONT
Q252 2SC2412K MUTE CONT
Q281 2SC2412K PROTECT CONT
Q282 2SC2412K PROTECT CONT
IC686 PQ05RF-21 +5V REG
IC685 TEA7605 +5V REG
IC681 PQ12RF21 +12V REG
IC684 PQ09RF11 +9V REG
IC683 TL431CLP +3.3V REG
PS681 IC1AP-N25
Q681 2SD2396H
Q571 2SC2412K
Q581 2SC2412K
IC572 CXA1859Q RGB DECODER
IC2701 M5216P ROTATION AMP
D2701 DAP202K
Q2701 2SC2412K BUFF
CN0103 8P WHT :BTOB-P
TO D BOARD CN0503
-22V
GND
+22V
SC PROTECT
+13.5V
+12V
+6.5V
+6.5V
CN0002 3P WHT :S-MICRO
ROT(+)
GND
ROT(-)
TO ROTATION COIL
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O


9
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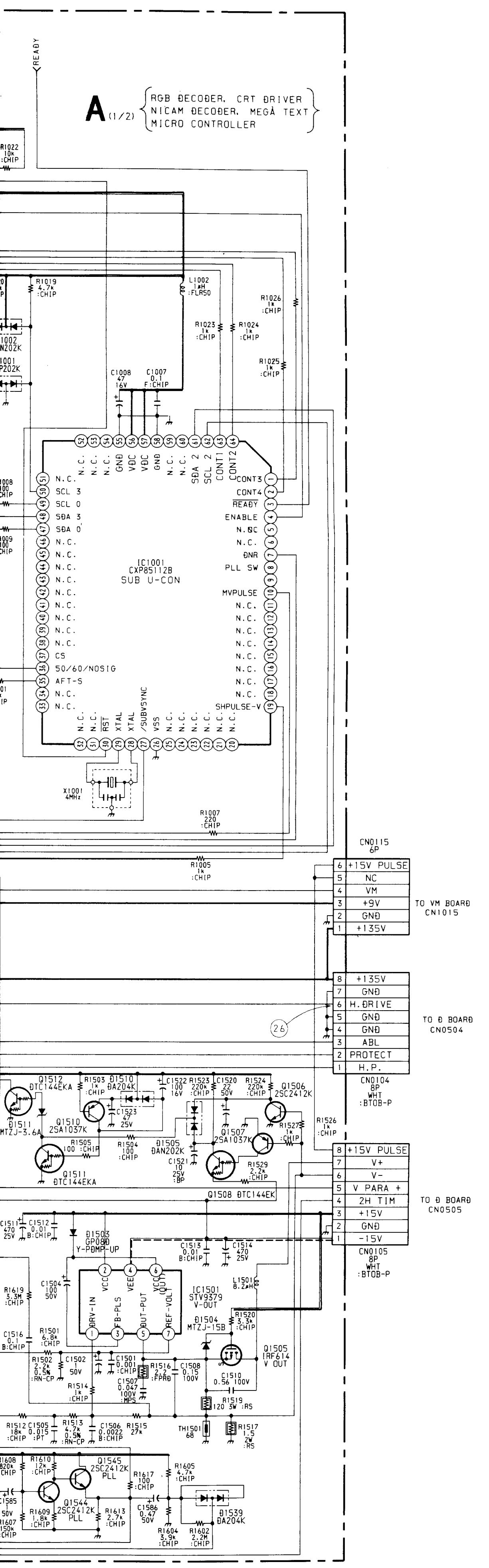
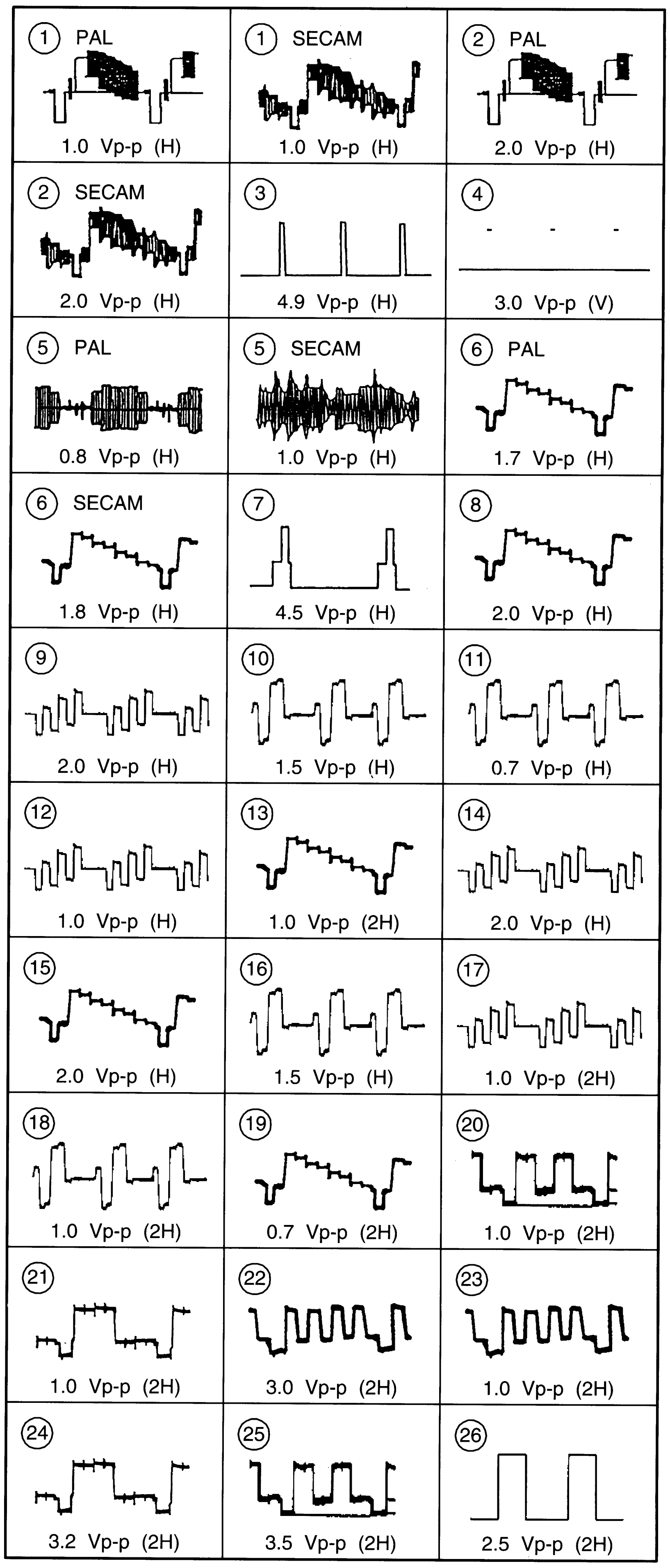
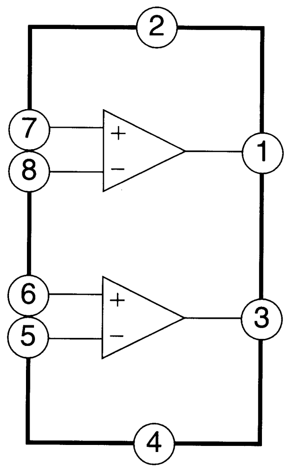
11
12
13
14
15
16
17
18
19
20
A (1/2)
RGB DECODER, CRT DRIVER
NICAM DECODER, MEGA TEXT
MICRO CONTROLLER
IC1001
CXP85112B
SUB U-CON
X1001
4MHz
M VIDEO
B-Y
R-Y
MY
VIDEO
COMB Y
COMB C
TO B3 BOARD
CN0302
CN0102
50P
WHT
:BTOB-S
2H TIM
GND
H TIM
50/60
VIDEO PLL
CCV OUT
CONT 3
C(R-Y)
CONT 4
C(B-Y)
SCL 2
SBA 2
CV SYNC
COMB Y
COMB C
CLP S
MC IN
CONT 1
CONT 2
MV IN
+3.3V
+5V
MY IN
BY OUT
Y OUT
RY OUT
C(Y)
SSCP
RY IN
Y IN
BY IN
RY1
BY1
NR ON/OFF
FF TIM
CLP W1
VS
VEQ
V BLK
+9V
CN0115
6P
+15V PULSE
NC
VM
+9V
GND
+135V
TO VM BOARD
CN1015
+135V
GND
H.DRIVE
GND
ABL
PROTECT
H.P.
CN0104
8P
WHT
:BTOB-P
TO G BOARD
CN0504
+15V PULSE
V+
V-
V PARA +
2H TIM
+15V
GND
-15V
CN0105
8P
WHT
:BTOB-P
TO G BOARD
CN0505
IC1531
CXA1840S
CRT DRIVER
IC572
CXA1869Q
RGB DECODER
IC1501
STV9379
V-OUT
Q1505
IRF614
V OUT
IC2701
MC3416P
ROTATION
AMP
Q2701
2SC2412K
BUFF
Q681
2SD2396H
CN0002
3P
WHT
:S-MICRO
ROT(+)
GND
ROT(-)
TO ROTATION
COIL
CN0111
7P
WHT
:S-MICRO
R OUT
G OUT
B OUT
GND
+12V
IK IN
GND
TO C BOARD
CN0411


A (1/2)
RGB DECODER, CRT DRIVER
NICAM DECODER, MEGA TEXT
MICRO CONTROLLER
IC1001
CXP851128
SUB U-CON
X1001 4MHz
CN0115 6P
+15V PULSE
NC
VM
+9V
GND
+135V
TO VM BOARD CN1015
CN0104 8P WHT :BTOB-P
+135V
GND
H.DRIVE
GND
GND
ABL
PROTECT
H.P.
TO D BOARD CN0504
CN0105 8P WHT :BTOB-P
+15V PULSE
V+
V-
V PARA +
2H TIM
+15V
GND
-15V
TO D BOARD CN0505
IC1501
STV9379
V-OUT
Q1505
IRF614
V OUT
Q1544
2SC2412K
PLL
Q1545
2SC2412K
PLL
26

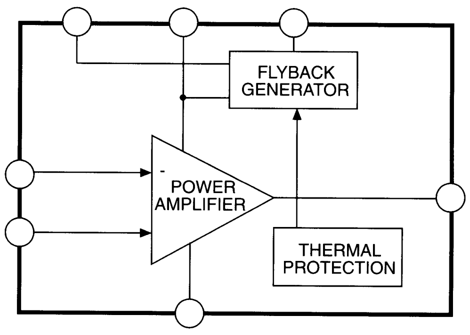
WAVEFORMS A BOARD



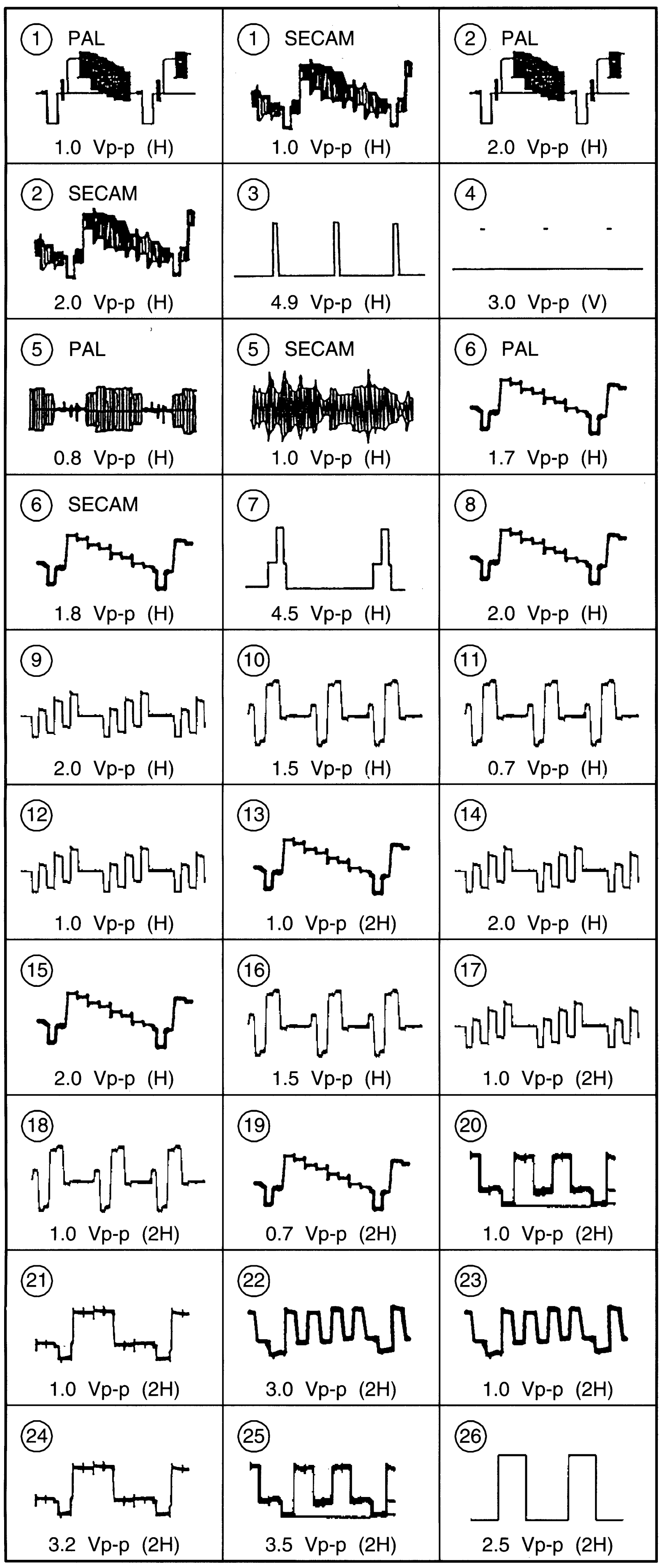
A Board IC202 TDA2822M



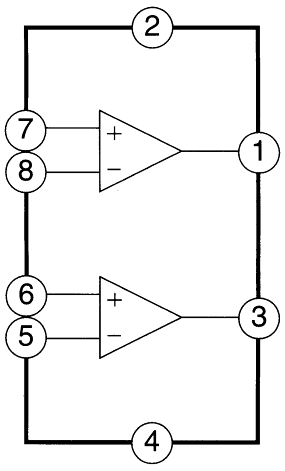
A Board IC1501 STV9379


FLYBACK GENERATOR
POWER AMPLIFIER
THERMAL PROTECTION

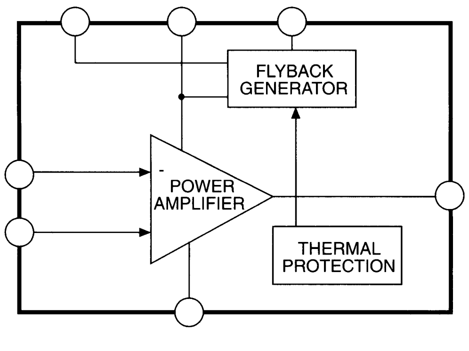
WAVEFORMS A BOARD



A Board IC202 TDA2822M



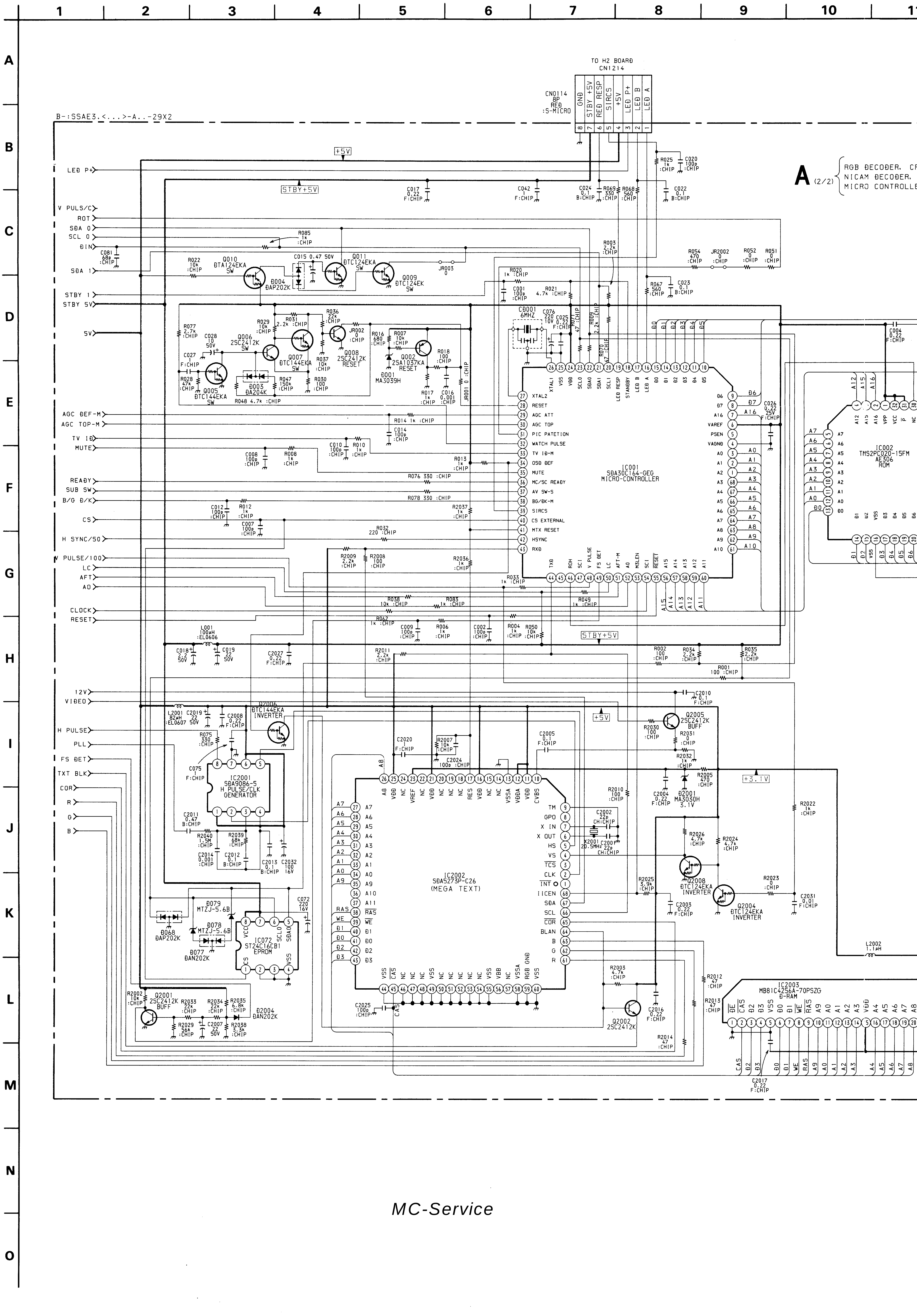
A Board IC1501 STV9379



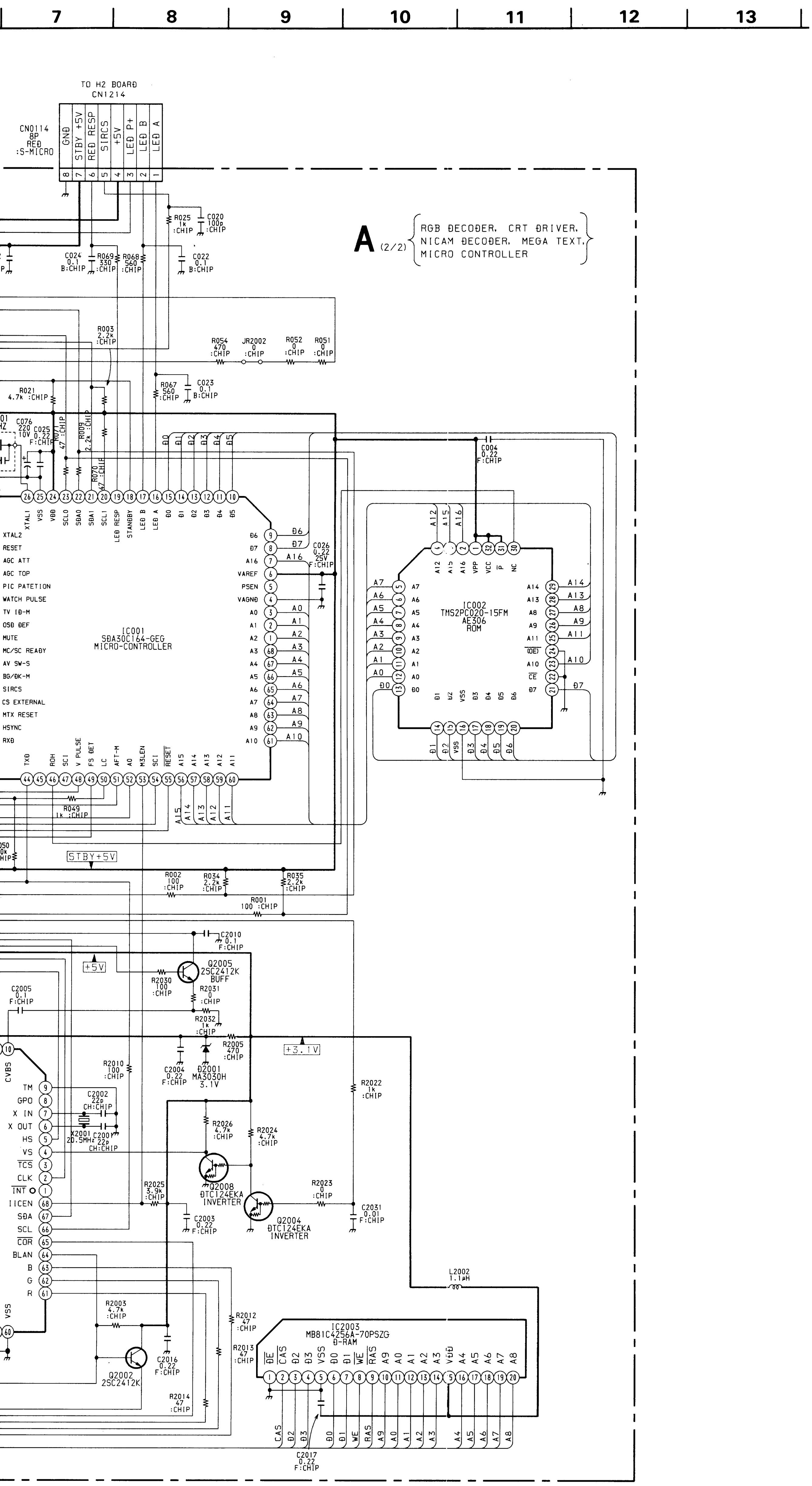
Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
IC1001	1	0		44	GND		5	3.6
	2	0		45-47	2.1		6	3.0
	3	5.0		48	GND		7	3.1
	4	4.0		49-50	4.4		8	1.7
	5-6	-		51-52	-		9	1.8
	7	0		53-54	4.0		10	0.8
	8-9	-		55-60	-		11	0.5
	10	0.2		61	4.4		12	GND
	11	-		62	GND		13	9.0
	12	1.5		63	2.2		14	0
	13-18	-		64	-		15	3.8
	19	1.0	IC201	1	0		16	4.0
	20-25	-		2-7	6.1		17	4.4
	26	GND		8	12.0		18	8.7
	27	2.0		9-10	4.0		19-21	3.6
	28	2.5		11	0.1		22	0.8
	29	2.5		12	0		23	2.4
	30	4.0		13-15	3.0		24	5.0
	31-54	-		16	0		25	2.1
	55	GND		17-19	6.1		26	2.2
	56	5.0		20	0		27	2.1
	57	5.0		21	6.1		28	8.0
	58	GND		22	0		29-32	4.0
	59-60	-		23-31	6.1		33	5.1
	61	6.3		32-35	0		34	0.2
	62	4.2		36-43	6.1		35	2.4
	63	0		44	0		36	9.0
	64	0	IC202	1	5.4		37	GND
IC1101	1-2	-		2	12.0		38	0
	3	1.0		3	5.4		39	5.0
	4	2.2		4	GND		40	2.1
	5-6	-		5	0.5		41	2.2
	7	2.2		6-7	0		42	4.2
	8	0		8	0.5		43	0
	9-10	-	IC2701	1-3	4.4		44	-
	11	2.2		4.0	–		45-47	4.6
	12	1.0		5-7	–		48	4.4
	13-14	-		8.0	0	IC1501	1	2.2
	15	GND		9.0	0.2		2	14.0
	16	2.2	IC1003	1-4	GND		3	-14.0
	17	4.0		5-6	5.0		4	-16.0
	18-21	-		7	GND		5	-1.4
	22	2.2		8	5.0		6	14.5
	23	0	IC251/261	1	-20.0		7	2.2
	24	-		2	0	IC681	1	13.3
	25	2.2		3	20.0		2	12.0
	26	-		4	0		3	GND
	27-30	2.1		5	10.0		4	2.3
	31-33	-		6	-20.0	IC682	1	5.7
	34	1.8		7-8	0		2	5.0
	35-37	2.1		9	GND		3	GND
	38	4.1		10-11	0		4	2.3
	39	GND	IC1531	1	3.7	IC683	1	2.4
	40	-		2	0.3		2	GND
	41	1.7		3	5.8		3	4.0
	42	3.1		4	GND	All Voltages are indicated in Volts DC		
	43	2.1						

Ref.No.	Pin No.	Voltage (V)
IC684	1	11.9
	2	GND
	3	9.0
IC685	1	5.8
	2	GND
	3	5.0
IC686	1	5.6
	2	5.0
	3	GND
	4	2.3
IC572	1-3	6.0
	6	9.0
	7	GND
	8-10	9.0
	11-12	GND
	13-14	4.0
	15	0.8
	16	0.6
	17	0.5
	18-20	0.3
	21-22	NC
	23	0.2
	25	4.0
	26	4.7
	28-30	GND
	31	9.0
	32	GND
	33-35	4.4
	37-39	GND
	41	2.5
	42	GND
	44-45	2.7
	46	2.6
	47	8.7
	48	NC

Pin No. / Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q102	4.7	0	0
Q103	0	1.7	0
Q106	31.4	32.0	32.0
Q107	0.5	0	0
Q203	0.6	0.1	0
Q251	0.6	0	0
Q252	0	0.6	0
Q253	13.4	-0.4	13.4
Q254	-2.1	0	0
Q255	-2.0	0	0
Q256	-0.1	2.3	0
Q257	0.6	0	0
Q259	21.5	10.5	21.1
Q260	0	21.5	0
Q351	2.8	1.7	3.5
Q352	1.8	0	2.5
Q571	6.4	9.0	5.7
Q581	0.6	0	0
Q1001	0.3	0	1.0
Q1105	3.0	5.6	2.4
Q1107	3.0	5.8	2.4
Q1108	5.8	11.8	5.2
Q1502	0.4	9.0	-3.7
Q1531	5.6	0	6.1
Q1532	9.0	4.4	9.0
Q1533	0.5	0.4	0
Q1544	1.1	4.5	0.6
Q1545	4.5	9.0	4.0
Q1447	4.4	-9.0	5.0
Q1548	6.4	9.0	5.7
Q1549	0.9	-0.2	1.4
Q1532	-1.2	3.0	-1.8



A (2/2)
RGB DECODER, CF
NICAM DECODER,
MICRO CONTROLLE
TO H2 BOARD
CN1214
CN0114
8P
RED
:S-MICRO
GND
STBY +5V
RED RESP
SIRCS
+5V
LED P+
LED B
LED A
B-:SSAE3.<...>-A..-29X2
LED P+
V PULS/C
ROT
SDA 0
SCL 0
DIN
SDA 1
STBY 1
STBY 5V
5V
AGC DEF-M
AGC TOP-M
TV ID
MUTE
READY
SUB SW
B/G D/K
CS
H SYNC/50
V PULSE/100
LC
AFT
AD
CLOCK
RESET
12V
VIDEO
H PULSE
PLL
FS DET
TXT BLK
COR
R
G
B
+5V
STBY+5V
Q010
DTA124EKA
SW
Q011
DTC124EKA
SW
Q009
DTC124EK
SW
D004
DAP202K
Q006
2SC2412K
SW
Q007
DTC144EKA
SW
Q008
2SC2412K
RESET
Q005
DTC144EKA
SW
D003
DA204K
Q002
2SA1037KA
RESET
D001
MA3039H
CD001
6MHZ
IC001
SDA30C164-GEG
MICRO-CONTROLLER
IC002
TMS27PC020-15FM
AE306
ROM
L001
100µH
:EL0606
L2001
82µH
:EL0607
D2006
DTC144EKA
INVERTER
IC2001
SDA9086-5
H PULSE/CLK
GENERATOR
IC2002
SDA5273P-C26
(MEGA TEXT)
Q2005
2SC2412K
BUFF
D2001
MA3030H
3.1V
+3.1V
Q2008
DTC124EKA
INVERTER
Q2004
DTC124EKA
INVERTER
X2001
20.5MHz
D079
MTZJ-5.6B
D078
MTZJ-5.6B
D068
DAP202K
D077
DAN202K
IC072
ST24C16CB1
EPROM
Q2001
2SC2412K
BUFF
D2004
DAN202K
Q2002
2SC2412K
L2002
1.1µH
IC2003
MB81C4256A-70PSZG
D-RAM
A B C D E F G H I J K L M N O
1 2 3 4 5 6 7 8 9 10


7
8
9
10
11
12
13
TO H2 BOARD
CN1214
CN0114
8P
RED
:S-MICRO
GND
STBY +5V
RED RESP
SIRCS
+5V
LED P+
LED B
LED A
A (2/2)
RGB DECODER, CRT DRIVER,
NICAM DECODER, MEGA TEXT,
MICRO CONTROLLER
IC001
SDA30C164-GEG
MICRO-CONTROLLER
IC002
TMS2PC020-15FM
AE306
ROM
STBY+5V
+5V
+3.1V
Q2005
2SC2412K
BUFF
D2001
MA3030H
3.1V
Q2008
DTC124EKA
INVERTER
Q2004
DTC124EKA
INVERTER
Q2002
2SC2412K
X2001
20.5MHz
L2002
1.1µH
IC2003
MB81C4256A-70PSZG
D-RAM

Ref.No.	Pin No.	Voltage (V)
IC001	6	5.0
	16-17	3.7
	18	2.5
	19	3.6
	20-21	5.0
	22-23	4.0
	24	5.0
	26	2.1
	27	2.3
	28	4.7
	29	0
	30	4.8
	31	2.4
	32	1.6
	34	5.0
	36	5.0
	37	3.4
	38	3.3
	39-40	5.0
	41	0.1
	42	0.4
	43	5.0
	44	4.8
	48	0.3
	49	1.3
	50	5.0
	51	2.4
	52	5.0
	53	4.5
	54	5.0
	55	3.8
IC002	1	5.0
	31-32	5.0
IC2002	2	1.5
	4-5	0.1
	6-7	1.7
	10	0.8
	11-12	5.0
	16	5.0
	17	0.1
	21	5.0
	23	3.0
	25	5.0
	45	4.4
	65	0.6
	66-67	5.0
	68	4.5
IC2003	15	4.5

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q002	4.2	4.7	4.8
Q005	-0.1	0	0
Q006	0	4.8	0.8
Q007	4.8	0.9	0.8
Q008	0.3	4.8	0
Q2001	0.3	5.0	0
Q2002	0	4.8	0
Q2004	0.3	4.0	0
Q2005	3.8	12.0	3.1
Q2006	0.1	0	0
Q2008	4.0	0.1	0

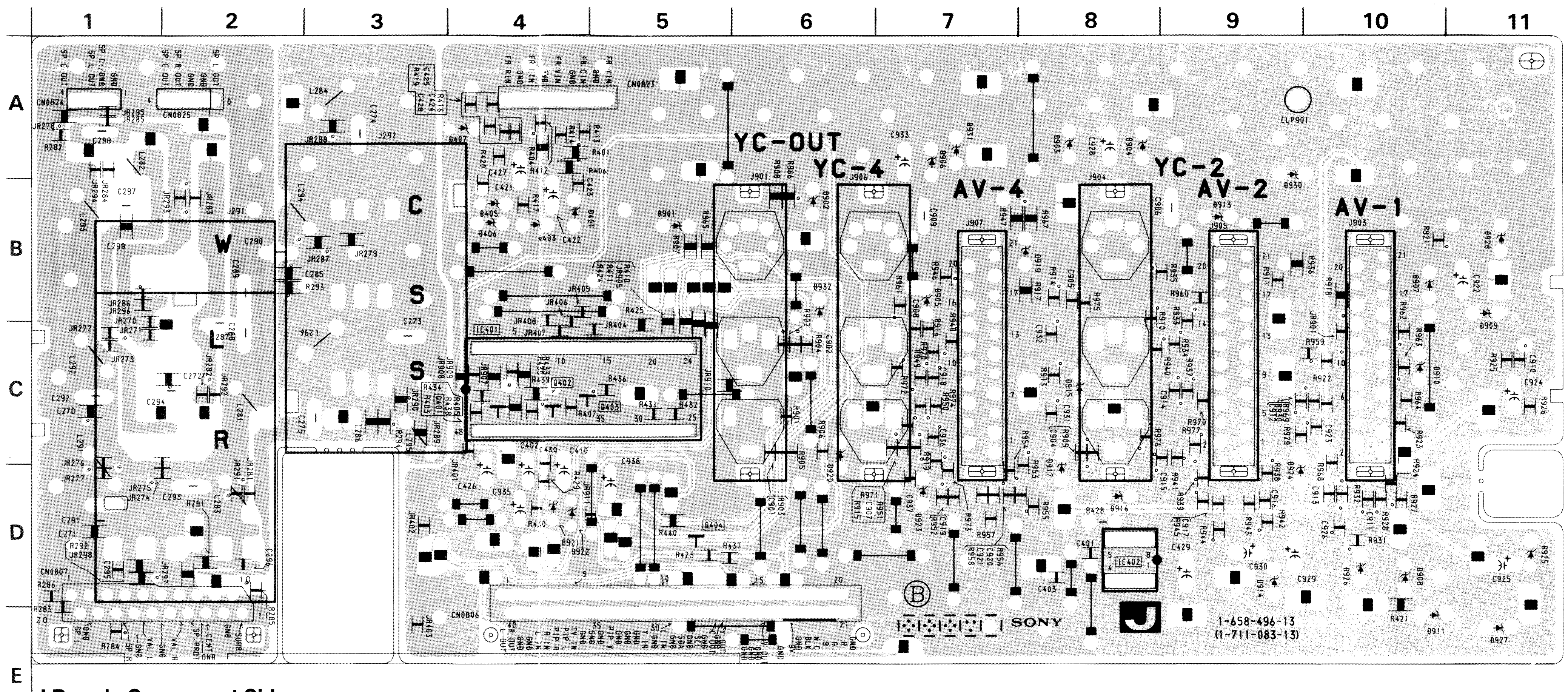
J BOARD

IC	
IC401	C-4
IC402	D-8

TRANSISTOR	
Q401	C-3
Q402	C-4
Q403	C-5
Q404	D-5

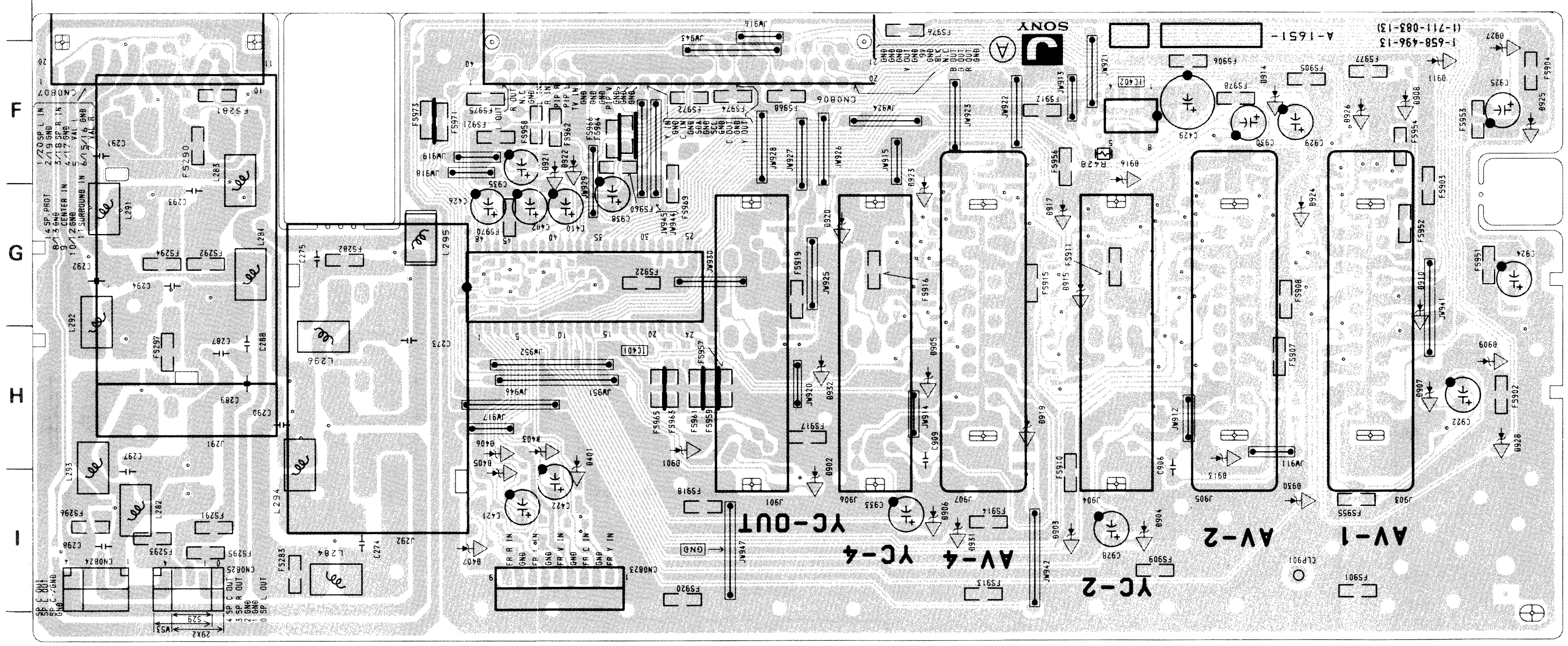
DIODE	
D401	B-4
D403	B-4
D405	B-4
D406	B-4
D407	A-4
D903	A-8
D904	A-8
D907	B-10
D908	D-10
D909	B-11
D910	C-10
D911	E-10
D913	B-9
D914	D-9
D915	C-8
D916	D-8
D917	C-8
D924	C-9
D925	D-11
D926	D-10
D927	E-11
D928	B-11
D930	B-9
D931	A-7

J Board <Conductor Side>



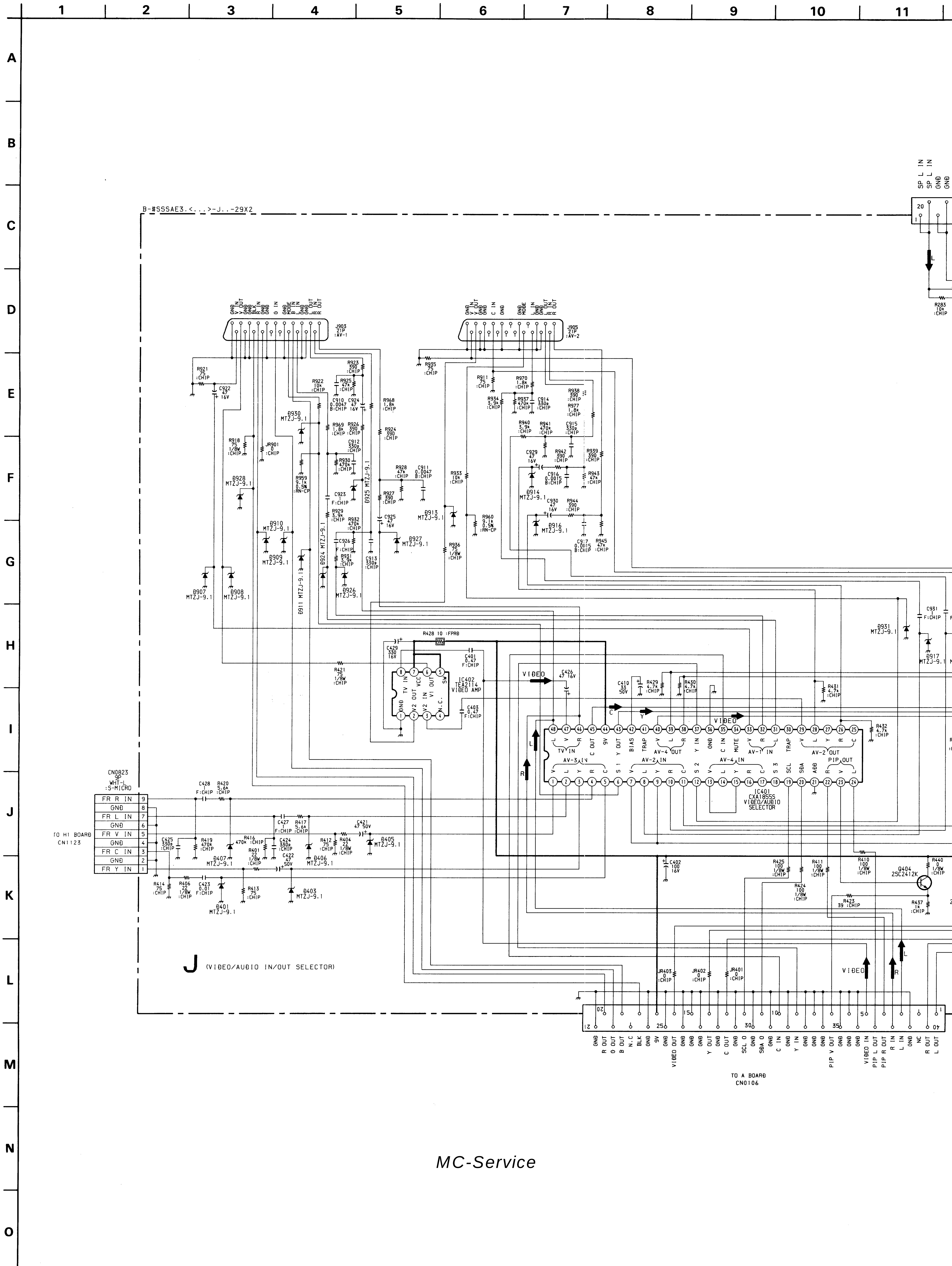
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
YC-OUT
YC-4
AV-4
YC-2
AV-2
AV-1
W
C
S
S
L
R
SONY
1-658-496-13
(1-711-083-13)

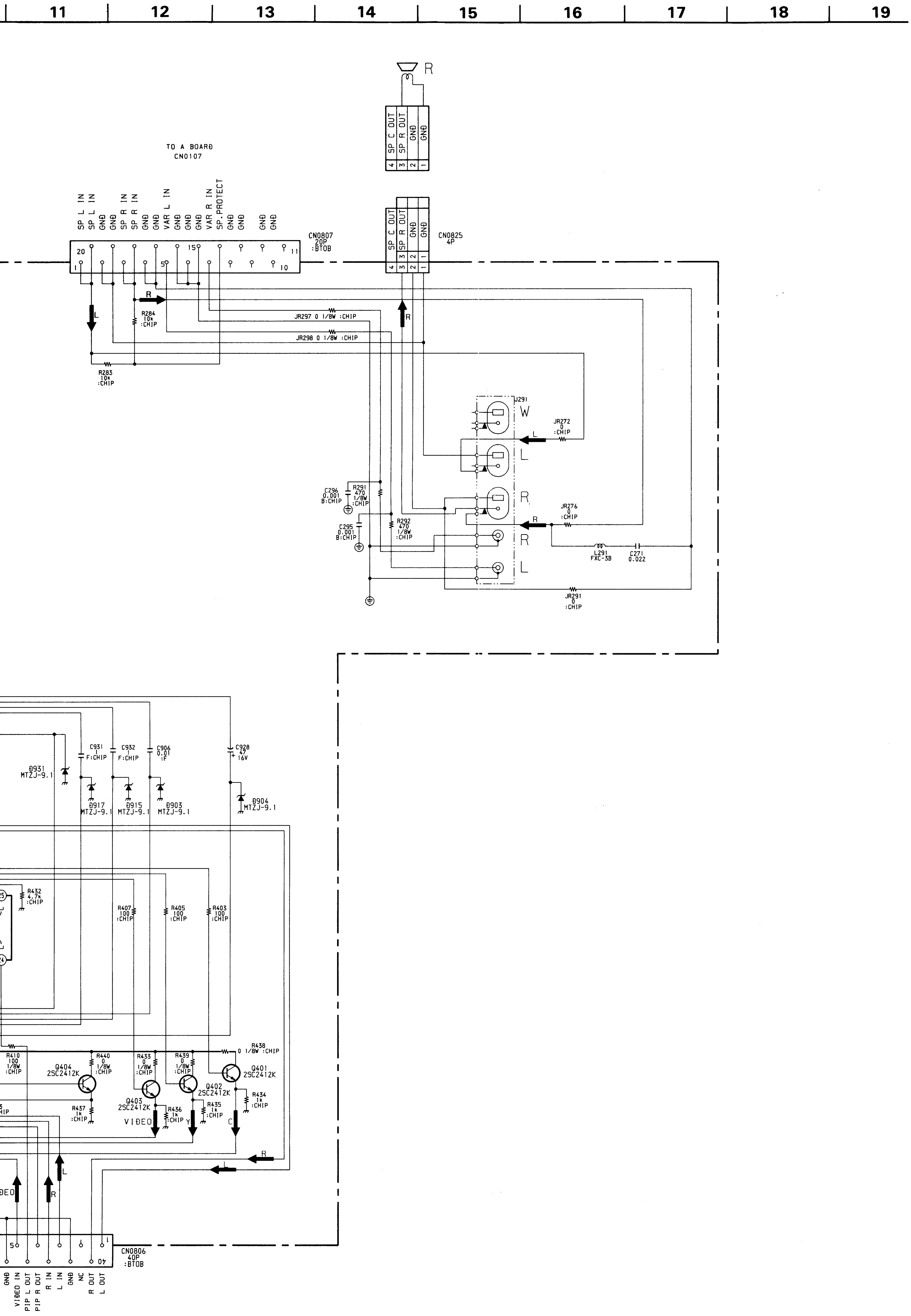
J Board <Component Side>



F
G
H
I
YC-OUT
YC-4
AV-4
YC-2
AV-2
AV-1
SONY
A-1651
1-658-496-13
(1-711-083-13)

MC-Service

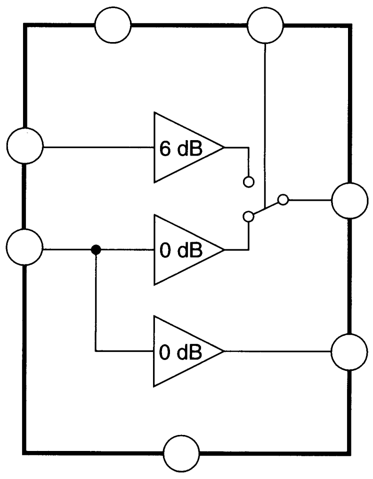
B-#SSSAE3.<...>-J..-29X2
J903 21P :AV-1
J905 21P :AV-2
IC402 TEA2114 VIDEO AMP
IC401 CXA1855S VIDEO/AUDIO SELECTOR
CN0823 9P WHT-L :S-MICRO
TO H1 BOARD CN1123
FR R IN
GND
FR L IN
GND
FR V IN
GND
FR C IN
GND
FR Y IN
TV IN
AV-4 OUT
AV-1 IN
AV-2 OUT
AV-3 IN
AV-2 IN
AV-4 IN
PIP OUT
VIDEO
Q404 2SC2412K
TO A BOARD CN0106
GND
R OUT
G OUT
B OUT
N.C
BLK
GND
9V
GND
VIDEO OUT
GND
GND
GND
GND
Y OUT
GND
C OUT
GND
SCL O
GND
SDA O
GND
C IN
GND
Y IN
GND
GND
GND
GND
PIP V OUT
GND
GND
VIDEO IN
PIP L OUT
PIP R OUT
R IN
L IN
GND
NC
R OUT
L OUT
SP L IN
SP L IN
GND
GND
J (VIDEO/AUDIO IN/OUT SELECTOR)


11
12
13
14
15
16
17
18
19
R
SP C OUT
SP R OUT
GND
GND
4
3
2
1
TO A BOARD
CN0107
SP L IN
SP L IN
GND
GND
SP R IN
SP R IN
GND
GND
VAR L IN
GND
GND
GND
VAR R IN
SP.PROTECT
GND
GND
GND
GND
20
1
15
5
11
10
CN0807
20P
:BTOB
CN0825
4P
R
L
R
R284
10k
:CHIP
JR297 0 1/8W :CHIP
JR298 0 1/8W :CHIP
R283
10k
:CHIP
J291
W
L
R
R
L
JR272
0
:CHIP
L
JR276
0
:CHIP
R
C296
0.001
B:CHIP
R291
470
1/8W
:CHIP
C295
0.001
B:CHIP
R292
470
1/8W
:CHIP
L291
FXC-3B
C271
0.022
JR291
0
:CHIP
C931
1
F:CHIP
C932
1
F:CHIP
C906
0.01
:F
C928
47
16V
D931
MTZJ-9.1
D917
MTZJ-9.1
D915
MTZJ-9.1
D903
MTZJ-9.1
D904
MTZJ-9.1
R432
4.7k
:CHIP
25
24
R407
100
:CHIP
R405
100
:CHIP
R403
100
:CHIP
R438
0 1/8W :CHIP
R410
100
1/8W
:CHIP
R440
0
1/8W
:CHIP
Q404
2SC2412K
R433
0
1/8W
:CHIP
R439
0
1/8W
:CHIP
Q401
2SC2412K
Q402
2SC2412K
Q403
2SC2412K
R437
1k
:CHIP
R436
1k
:CHIP
R435
1k
:CHIP
R434
1k
:CHIP
VIDEO
Y
C
R
L
VIDEO
R
L
5
1
40
CN0806
40P
:BTOB
GND
VIDEO IN
PIP L OUT
PIP R OUT
R IN
L IN
GND
NC
R OUT
L OUT

Ref.No.	Pin No.	Voltage (V)
IC401	1-5	4.5
	7-11	4.5
	13-17	4.5
	19-20	4.0
	22-33	4.5
	35	5.5
	37	5.5
	38-39	4.5
	40-41	4.4
	42	4.5
	43	5.4
	44	9.0
	45	5.5
	46	4.7
	47-48	4.5
IC402	2	1.8
	3	2.5
	5	8.8
	6	1.7
	7	8.8
	8	2.2

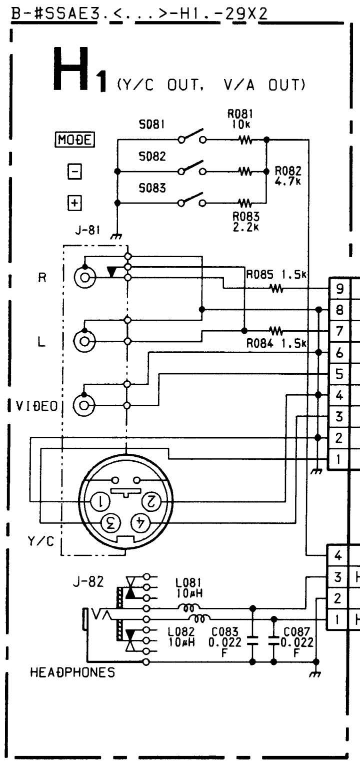
Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q401	5.7	9.0	-C.3
Q402	5.5	9.0	5.0
Q403/404	4.4	9.0	3.9

J Board IC402 TEA2114

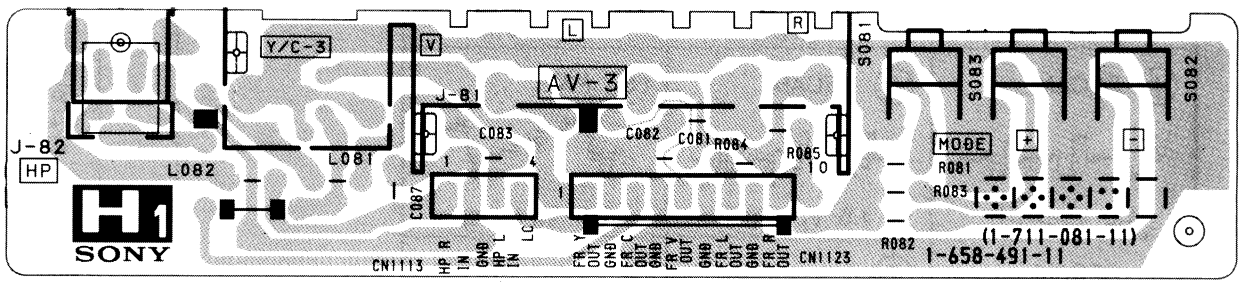


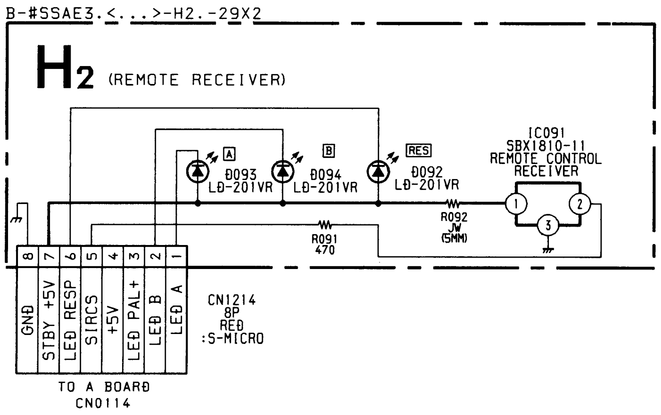
MC-Service

H1 [Y/C, VIDEO/AUDIO OUT] **H2** [REMOTE RECEIVER] **F1** [POWER SWITCH]

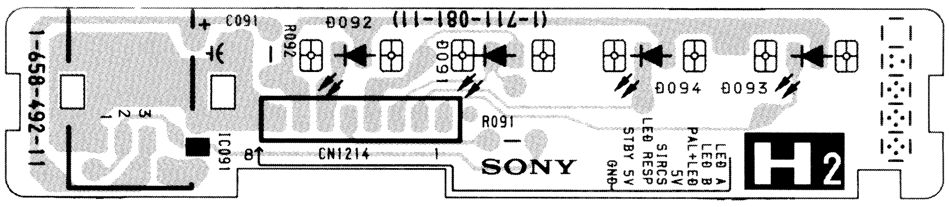

B-#SSAE3.<...>-H1.-29X2
H1 (Y/C OUT, V/A OUT)
MODE
S081
S082
S083
R081 10k
R082 4.7k
R083 2.2k
J-81
R
L
VIDEO
Y/C
R085 1.5k
R084 1.5k
CN1123 9P WHT :S-MICRO
9 FR R OUT
8 GND
7 FR L OUT
6 GND
5 FR V OUT
4 GND
3 FR C OUT
2 GND
1 FR Y OUT
TO J BOARD CN0823
CN1113 4P WHT :S-MICRO
4 LC
3 HP L IN
2 GND
1 HP R IN
TO A BOARD CN0113
J-82
L081 10μH
L082 10μH
C083 0.022 F
C087 0.022 F
HEADPHONES

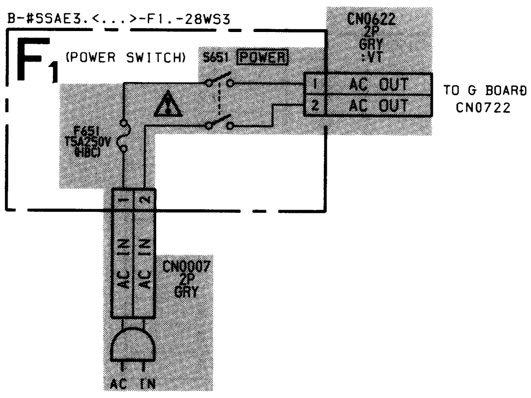
H1 Board


J-82
HP
L082
J-81
L081
Y/C-3
V
AV-3
L
R
C083
C082
C081
R084
R085
C087
S081
S083
S082
MODE
R081
R083
R082
CN1113
CN1123
HP R IN
GND
HP L IN
LC
FR Y OUT
GND
FR C OUT
GND
FR V OUT
GND
FR L OUT
GND
FR R OUT
SONY
(1-711-081-11)
1-658-491-11

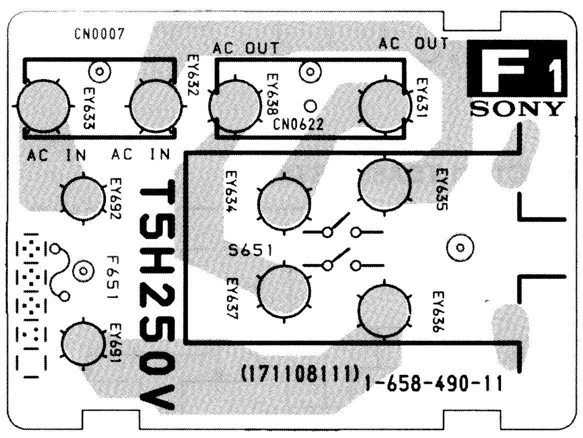

B-#SSAE3.<...>-H2.-29X2
H2 (REMOTE RECEIVER)
A
B
RES
D093 LD-201VR
D094 LD-201VR
D092 LD-201VR
IC091 SBX1810-11 REMOTE CONTROL RECEIVER
R091 470
R092 JW (5MM)
8 GND
7 STBY +5V
6 LED RESP
5 SIRCS
4 +5V
3 LED PAL+
2 LED B
1 LED A
CN1214 8P RED :S-MICRO
TO A BOARD CN0114

H2 Board

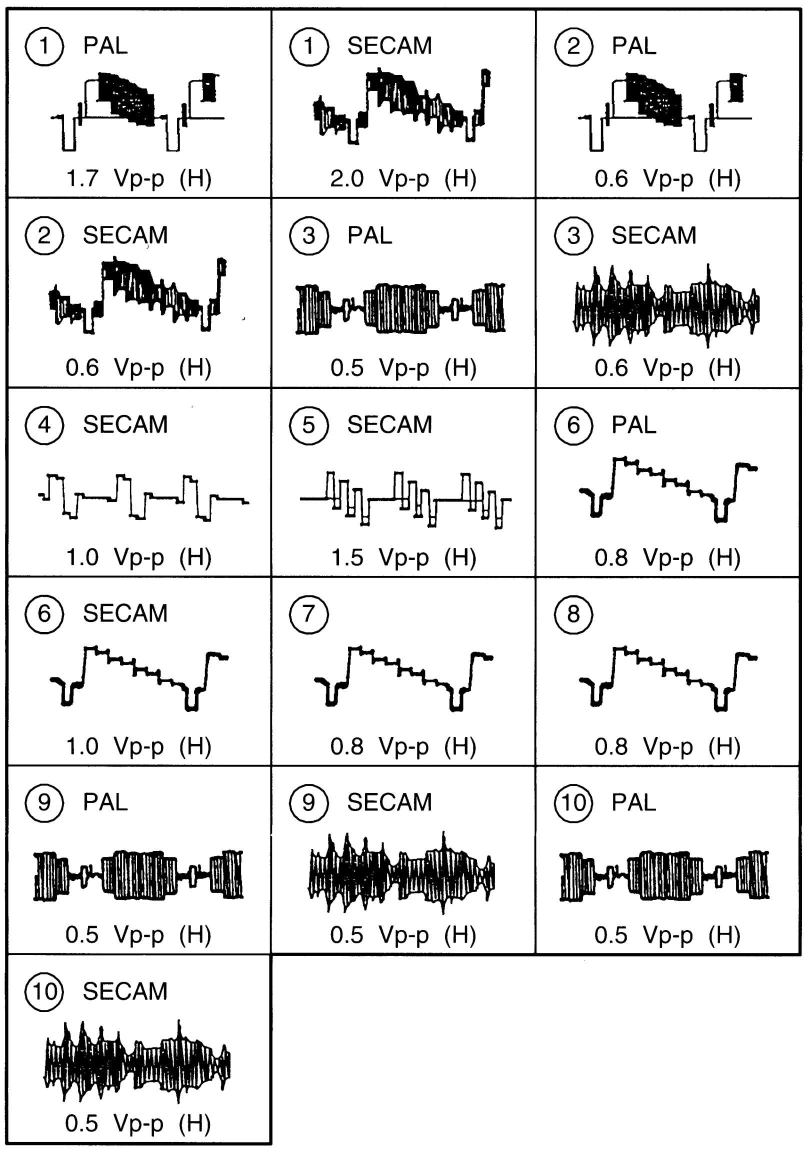

C091
D092
(1-711-081-11)
R092
D091
D094
D093
1-658-492-11
IC091
CN1214
R091
SONY
LED A
LED B
PAL+LED
5V
SIRCS
LED RESP
STBY 5V
GND
H2


B-#SSAE3.<...>-F1.-28WS3
F1 (POWER SWITCH)
S651 POWER
CN0622 2P GRY :VT
1 AC OUT
2 AC OUT
TO G BOARD CN0722
F651 T5A250V (HBC)
AC IN
AC IN
CN0007 2P GRY
AC IN

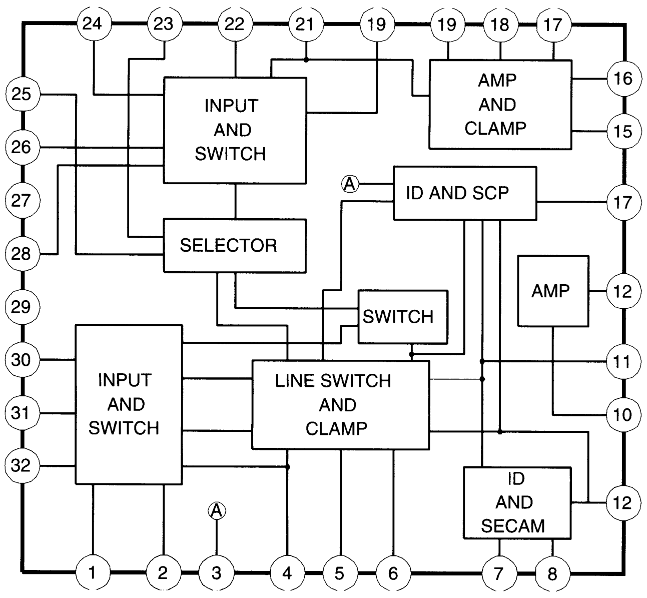
F1 Board


CN0007
AC OUT
AC OUT
EY632
EY633
EY638
CN0622
EY631
SONY
AC IN
AC IN
EY692
T5H250V
EY634
EY635
S651
F651
EY637
EY636
EY691
(1711081 11)
1-658-490-11

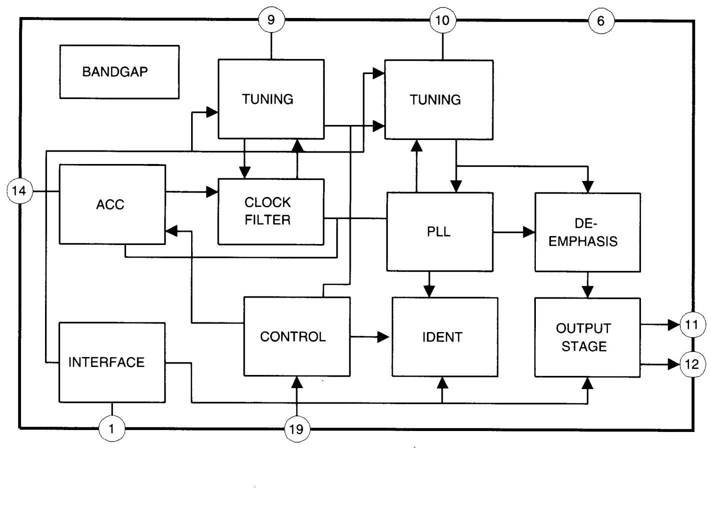
WAVEFORMS B3 BOARD



B3 Board IC1302 CXA1860Q-T4


24
23
22
21
19
19
18
17
25
26
27
28
29
30
31
32
16
15
17
12
11
10
12
INPUT AND SWITCH
AMP AND CLAMP
Ⓐ
ID AND SCP
SELECTOR
AMP
SWITCH
INPUT AND SWITCH
LINE SWITCH AND CLAMP
Ⓐ
ID AND SECAM
1
2
3
4
5
6
7
8

B3 Board IC1301 TDA8395ST/N2


9
10
6
BANDGAP
TUNING
TUNING
14
ACC
CLOCK FILTER
PLL
DE-EMPHASIS
CONTROL
IDENT
OUTPUT STAGE
11
12
INTERFACE
1
19

Ref.No.	Pin No.	Voltage (V)
IC01	27	1.2
	28-29	1.5
	32	1.1
	34-35	1.9
	37	0.3
	39	1.1
	41	1.1
	42	3.0
	43-48	4.8
IC02	6	3.1
	7	1.3
	9-10	4.2
	11-12	3.0
	13	1.6
	15	0.1
	16	1.6
	17	1.7
	18	1.6
	21-22	0
	24	3.1
	66	3.1
	79-82	0
	83	3.0
	84-87	0
	88	0.7
	89-91	3.0
	92-93	0
	132	0
	144	3.1
	156	1.5
	157	3.1
	158-159	0
	160	0.1
	164	3.1
	172	3.1
	175	1.5
IC04	1	4.8
	6	1.2
	8-9	0
	11	0
	38	0.7
	39	1.3
	41	4.8
	56	1.5
	62	4.8
	72	4.8
IC05	1	4.8
	6	1.4
	38	1.0
	39	1.4
	41	4.8
	56	1.2
	62	4.8
	72	4.8
IC06	4	1.3
	10	0
	17	1.0
	21	1.2
	22	4.8
	42	1.3
IC07	11	1.6
	33-35	4.8
	39	4.8
	41	4.8
	51	1.4
	53	4.8
	54	1.0
	64	4.8
	71	0.7
	73	4.8

Pin No. / Ref.No.	(B) Base	(C) Collector
Q01	0.8	0
Q02/03	1.6	0
Q04	0.3	0
Q05/06	1.1	0

Ref.No.	Pin No.	Voltage (V)
IC301	10-11	3.2
	12	1.1
	13-16	3.2
	18-20	3.2
	21	2.3
	24	1.7
	29	3.2
IC302	1	3.0
	3	0.4
	4	3.2
	6	1.4
	7-8	1.0
	9	0.4
	12	3.2
	13	0.5
	21	2.4
	22-23	3.2
	24	0.1
	25	2.2
	27	0.1
	28-29	4.2
	30	3.0
	31-35	1.2
	39	4.8
	40	2.6
	43	4.8
	45	3.1
	46	3.1
	47-48	1.6
	49	1.2
	51	1.2
	53	3.2
	60	3.1
	93	3.1
IC502	3	3.1
	5	1.0
	6	1.6
	7-9	1.0
	11	1.5
	12	3.2
	13	1.5
	15	1.8
	16	1.8
	17	1.2
	19-20	1.6
	21	3.2
	23-25	1.6
	26	1.7
	27	3.1
	28	0.3
	29	1.1
	30	1.6
	31	1.2
	32-33	1.5
	34-35	1.3
	53	3.1
	63	3.1
	65-66	3.1
	67	4.2
	68	3.1
	69	4.1
	70	3.1
	72	3.1
	73	1.6
	75	0.1
	76-77	3.1
	89	3.1
IC503	31-33	1.2
	35	1.2
	37	1.9
	40	2.0
	41-42	5.0
	43-44	3.0
	46	3.0
	48	3.0
	50	0.6
	52-53	4.8
	54	0.6
	56	4.8
	58	0.6
	60-61	4.8
	62	1.4
IC1505	2	1.2
	4	1.2
	6	1.2
	14	1.5
	16	1.5
	18	1.5
	20	4.8
IC1506	2	1.0
	4	1.0
	6	1.0
	8	1.0
	12	1.3
	14	1.4
	16	1.4
	18	1.4
	20	4.8
IC1301	1	4.4
	5	8.0
	9	3.2
	10	4.2
	11-12	2.9
	19	0.5
	20	7.0
IC1302	4	2.8
	5-6	4.2
	7	2.2
	8	0.1
	9	0.2
	10	2.4
	11	3.0
	12-13	2.8
	15	2.3
	16	0.1
	17	3.0
	19-21	2.8
	22	3.6
	24	3.6
	26	3.6
	27	8.8
	30	4.2
	31-32	4.0

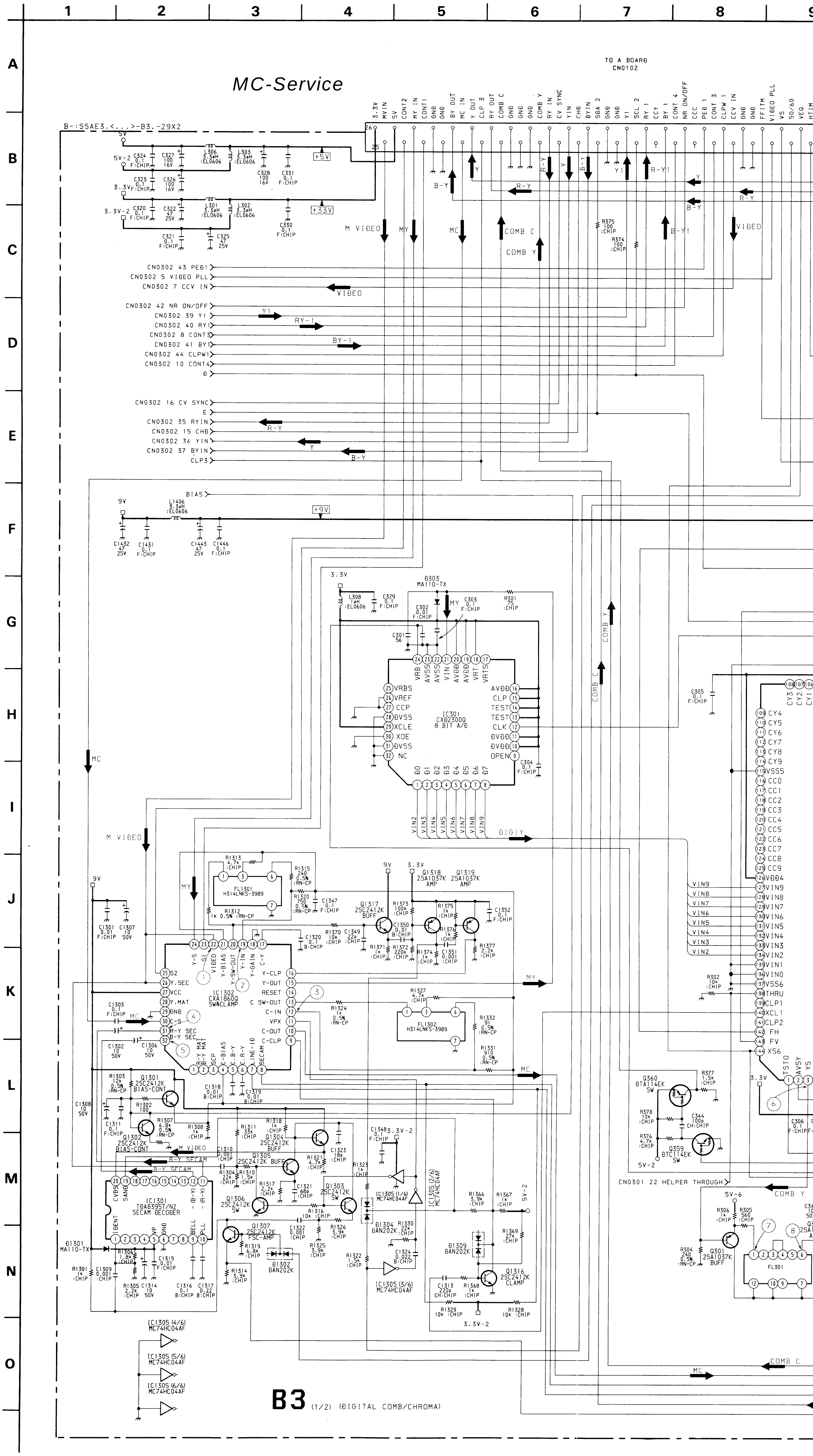
All Voltages are indicated in Volts DC

Pin No. / Ref.No.	(B) Base	(C) Collector
Q301	0.4	0
Q302	1.0	0
Q303	1.0	0
Q304	0.5	0
Q305	1.0	0
Q306	2.1	6.1
Q307	6.2	8.8
Q308	6.2	8.8
Q309	2.1	6.2
Q501/502/503	0.6	0
Q504	1.9	0
Q507	1.2	0
Q508	1.3	0
Q509	1.2	0
Q1301	3.4	8.8
Q1302	3.4	3.4
Q1303	0	7.5
Q1304	7.5	8.8
Q1307	0	8.7
Q1316	0.6	0.3
Q1318	3.2	0.2
Q1319	3.2	0.1

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q01	0.8	0	1.5
Q02/03	1.6	0	2.2
Q04	0.3	0	0.9
Q05/06	1.1	0	1.9

in No.	Voltage (V)
10	2.4
11	3.0
12-13	2.8
15	2.3
16	0.1
17	3.0
19-21	2.8
22	3.6
24	3.6
26	3.6
27	8.8
30	4.2
31-32	4.0
es are indicated in Volts DC	

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q301	0.4	0	1.1
Q302	1.0	0	1.6
Q303	1.0	0	1.6
Q304	0.5	0	1.2
Q305	1.0	0	1.7
Q306	2.1	6.1	1.4
Q307	6.2	8.8	5.6
Q308	6.2	8.8	5.6
Q309	2.1	6.2	1.5
Q501/502/503	0.6	0	1.3
Q504	1.9	0	1.9
Q507	1.2	0	1.9
Q508	1.3	0	1.9
Q509	1.2	0	1.9
Q1301	3.4	8.8	2.8
Q1302	3.4	3.4	2.9
Q1303	0	7.5	0
Q1304	7.5	8.8	6.9
Q1307	0	8.7	0.8
Q1316	0.6	0.3	0
Q1318	3.2	0.2	3.2
Q1319	3.2	0.1	3.2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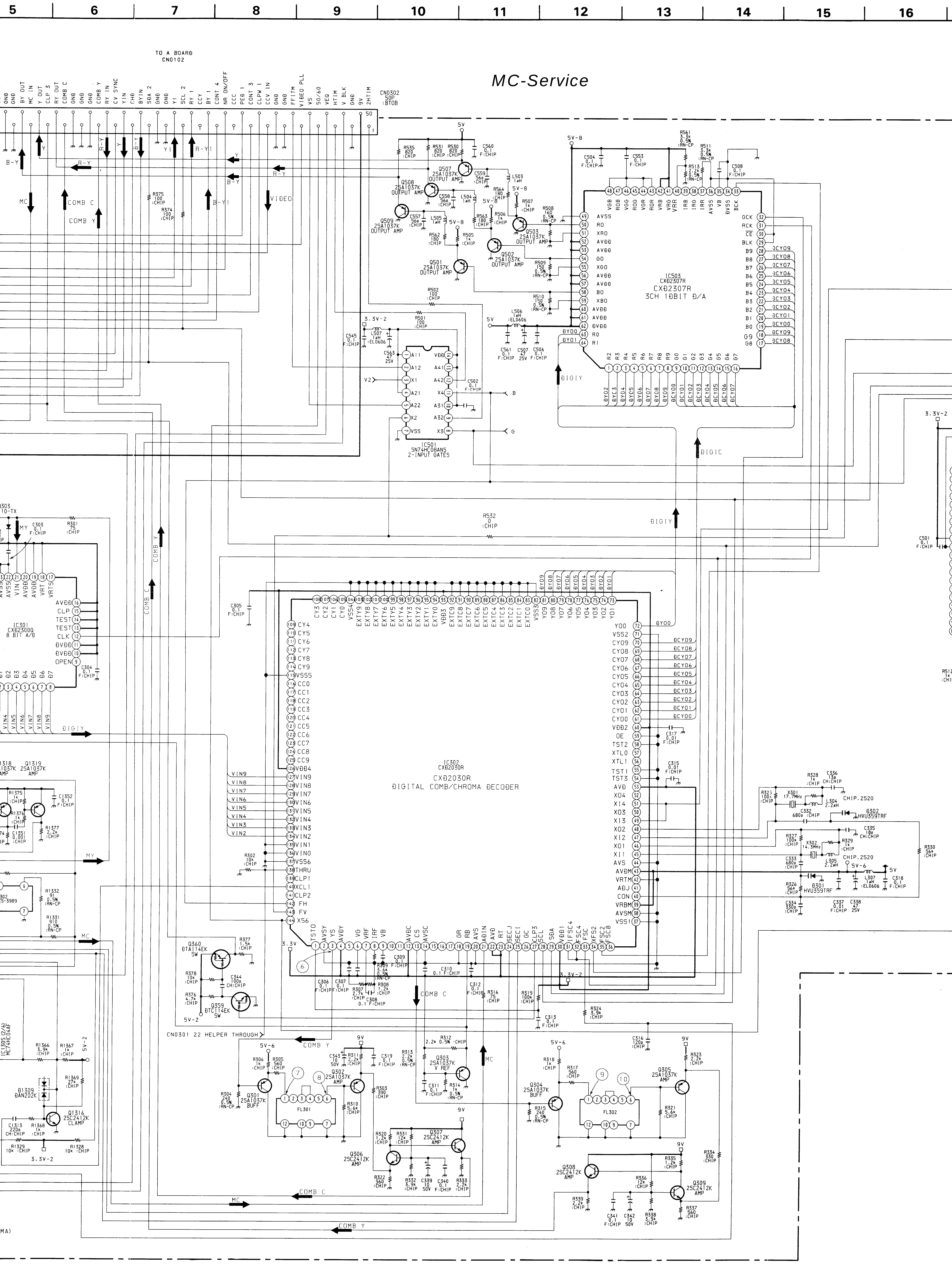
O
TO A BOARD
CN0102
B-:SSAE3.<...>-B3.-29X2
3.3V
MVIN
5V
CONT2
MY IN
CONT1
GND
BY OUT
MC IN
Y OUT
CLP 3
RY OUT
COMB C
COMB Y
RY IN
CV SYNC
Y IN
CHD
BYIN
SDA 2
SCL 2
Y1
RY 1
CCY
BY 1
CONT 4
NR ON/OFF
CCC
PED 1
CONT 3
CLPW 1
CCV IN
FFITM
VIDEO PLL
VS
50/60
VEQ
+5V
+3.3V
+9V
M VIDEO
MY
MC
COMB C
COMB Y
VIDEO
R-Y
B-Y
Y1
R-Y1
B-Y1
CN0302 43 PED1
CN0302 5 VIDEO PLL
CN0302 7 CCV IN
CN0302 42 NR ON/OFF
CN0302 39 Y1
CN0302 40 RY1
CN0302 8 CONT3
CN0302 41 BY1
CN0302 44 CLPW1
CN0302 10 CONT4
CN0302 16 CV SYNC
CN0302 35 RYIN
CN0302 15 CHD
CN0302 36 YIN
CN0302 37 BYIN
CLP3
BIAS
L1406 3.3μH :EL0606
C1432 47 25V
C1431 0.1 F:CHIP
C1443 47 25V
C1446 0.1 F:CHIP
L306 3.3μH :EL0606
L303 3.3μH :EL0606
L301 3.3μH :EL0606
L302 3.3μH :EL0606
D303 MA110-TX
L308 1μH :EL0606
R301 75 :CHIP
IC301 CXD2300Q 8 BIT A/D
VRB
VREF
CCP
DVSS
XCLE
XOE
NC
AVDD
CLP
TEST
CLK
DVDD
OPEN
VIN2
VIN3
VIN4
VIN5
VIN6
VIN7
VIN8
VIN9
DIGIY
R375 100 :CHIP
R374 100 :CHIP
FL1301 H314LNKS-3989
FL1302 H314LNKS-3989
IC1302 CXA1860Q SW&CLAMP
Y-CLP
Y-OUT
RESET
C SW-OUT
C-IN
VPX
C-OUT
C-CLP
Y.SEC
VCC
Y.MAT
GND
C-S
R-Y SEC
B-Y SEC
Q1317 2SC2412K BUFF
Q1318 2SA1037K AMP
Q1319 2SA1037K AMP
Q1301 2SC2412K BIAS-CONT
Q1302 2SC2412K BIAS-CONT
Q1304 2SC2412K BUFF
Q1305 2SC2412K BUFF
Q1306 2SC2412K SW
Q1303 2SC2412K SW
Q1307 2SC2412K FSC-AMP
Q1316 2SC2412K CLAMP
IC1301 TDA8395T/N2 SECAM DECODER
CVBS
SAND
IDENT
BELL
PLL
D1301 MA110-TX
D1302 DAN202K
D1304 DAN202K
D1309 DAN202K
IC1305 (1/6) MC74HC04AF
IC1305 (2/6) MC74HC04AF
IC1305 (3/6) MC74HC04AF
IC1305 (4/6) MC74HC04AF
IC1305 (5/6) MC74HC04AF
IC1305 (6/6) MC74HC04AF
R-Y SECAM
B-Y SECAM
M VIDEO
3.3V-2
5V-2
CN0301 22 HELPER THROUGH
Q360 DTA114EK SW
Q359 DTC114EK SW
Q301 2SA1037K BUFF
FL301
CY1
CY2
CY3
CY4
CY5
CY6
CY7
CY8
CY9
VSS5
CC0
CC1
CC2
CC3
CC4
CC5
CC6
CC7
CC8
CC9
VDD4
VIN1
VIN0
VSS6
THRU
CLP1
XCL1
CLP2
FH
FV
XS6
TSTO
AVSY

B3 (1/2) (DIGITAL COMB/CHROMA)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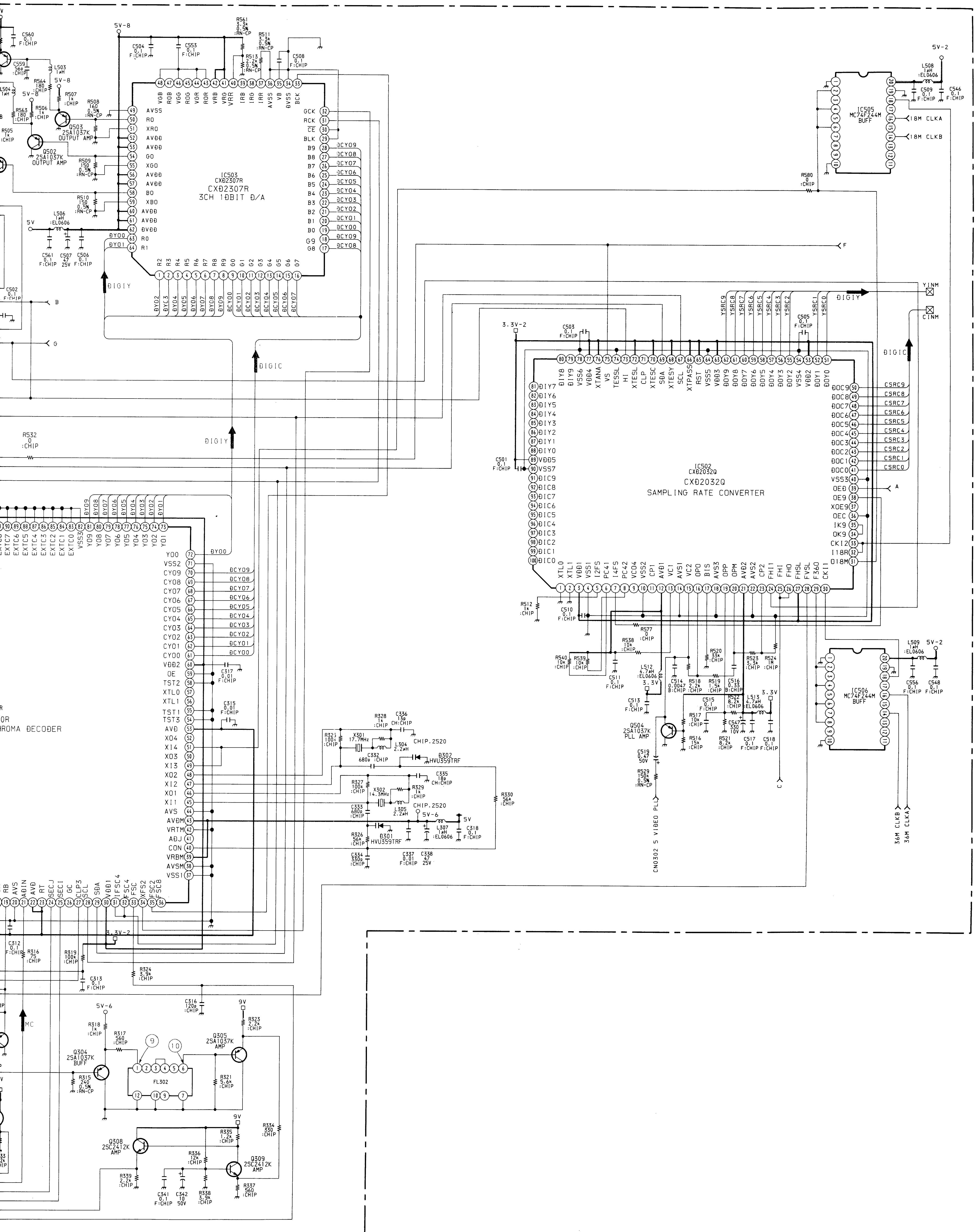
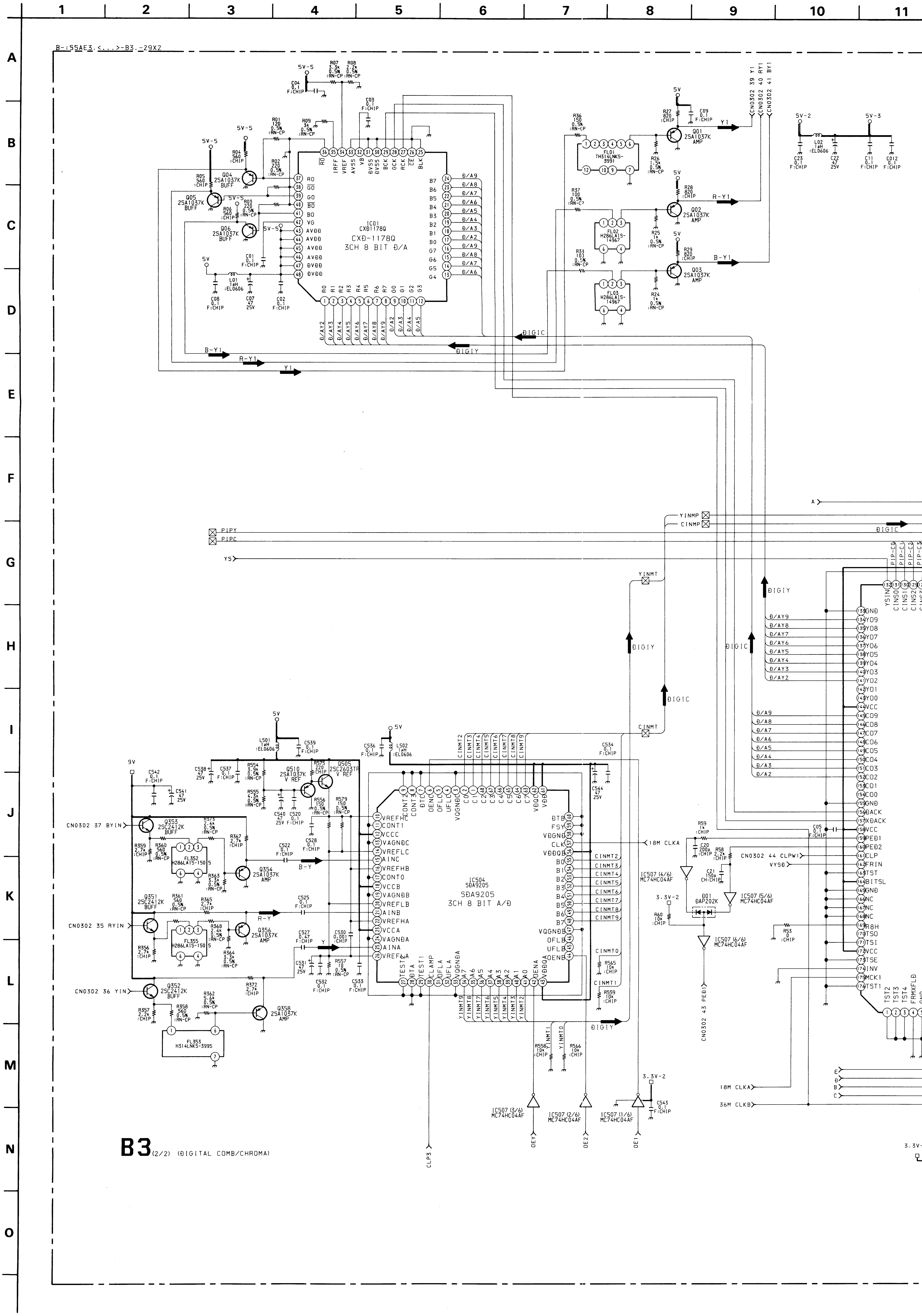
TO A BOARD
CN0102
CN0302
50P
:BT0B
IC503
CXD2307R
3CH 10BIT D/A
IC501
SN74HC08ANS
2-INPUT GATES
IC301
CXD23000
8 BIT A/D
IC302
CXD2030R
CXD2030R
DIGITAL COMB/CHROMA DECODER
Q507 2SA1037K OUTPUT AMP
Q508 2SA1037K OUTPUT AMP
Q509 2SA1037K OUTPUT AMP
Q501 2SA1037K OUTPUT AMP
Q502 2SA1037K OUTPUT AMP
Q503 2SA1037K OUTPUT AMP
Q301 2SA1037K BUFF
Q302 2SA1037K AMP
Q303 2SA1037K V REF
Q304 2SA1037K BUFF
Q305 2SA1037K AMP
Q306 2SC2412K AMP
Q307 2SC2412K AMP
Q308 2SC2412K AMP
Q309 2SC2412K AMP
Q359 DTC114EK SW
Q360 DTA114EK SW
Q1316 2SC2412K CLAMP
D1309 DAN202K
FL301
FL302
X301 17.7MHz
X302 14.3MHz
D301 HVU359TRF
D302 HVU359TRF
CN0301 22 HELPER THROUGH
COMB Y
COMB C
MC
MY
DIGIY
DIGIC
VIDEO
3.3V-2
5V-8
5V-6
9V
5V

MC-Service


IC503
CXD2307R
3CH 10BIT D/A
IC502
CXD2032Q
SAMPLING RATE CONVERTER
IC505
MC74F244M
BUFF
IC506
MC74F244M
BUFF
CHROMA DECODER
Q503
2SA1037K
OUTPUT AMP
Q502
2SA1037K
OUTPUT AMP
Q504
2SA1037K
PLL AMP
Q304
2SA1037K
BUFF
Q305
2SA1037K
AMP
Q308
2SC2412K
AMP
Q309
2SC2412K
AMP
FL302
X301 17.7MHz
X302 14.3MHz
D301 HVU359TRF
D302 HVU359TRF
18M CLKA
18M CLKB
36M CLKB
36M CLKA
CN0302 5 VIDEO PLL
YINM
CINM
DIGIY
DIGIC
MC
5V-8
5V-2
5V-6
3.3V-2
9V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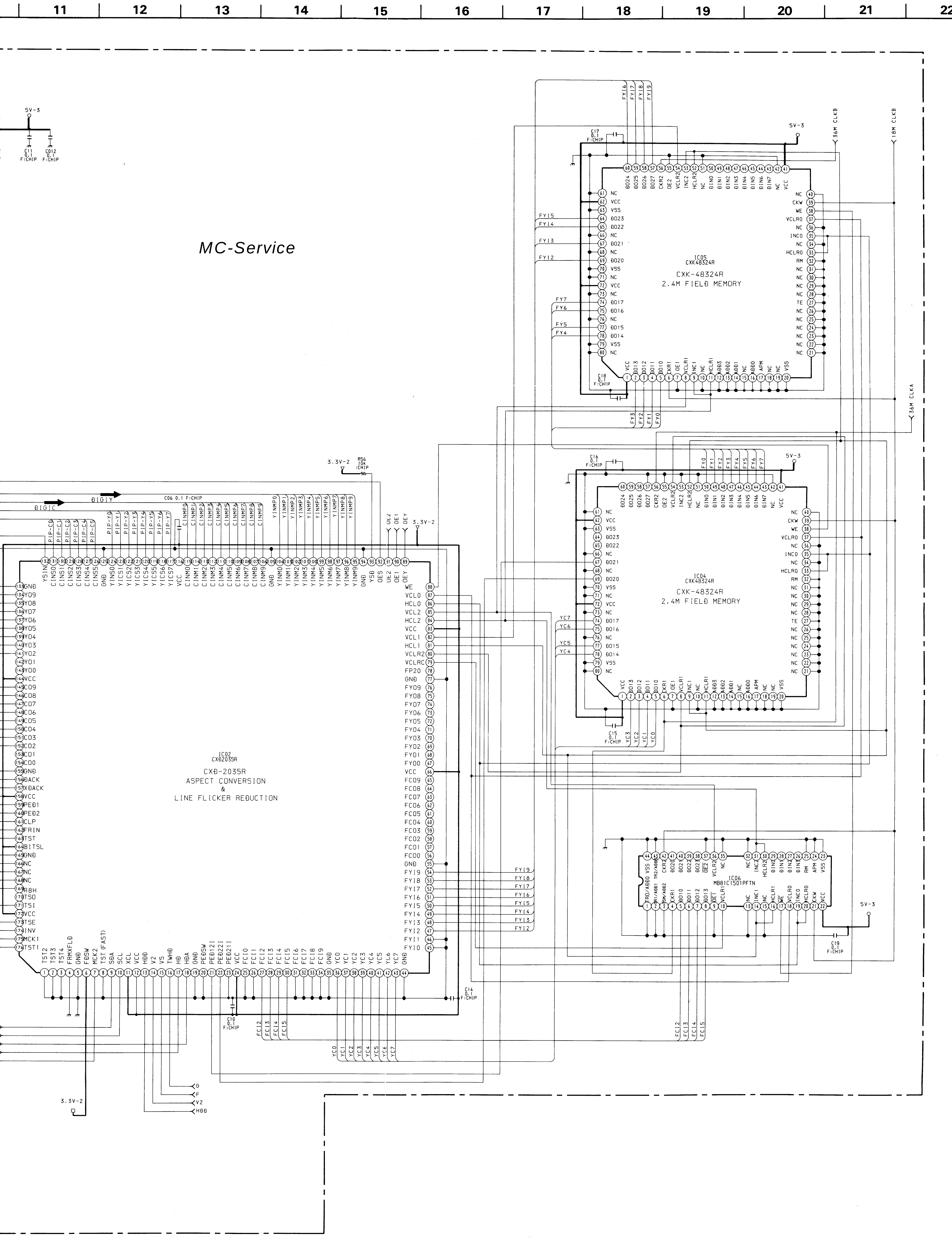
I
J
K
L
M
N
O
B-:SSAE3.<...>-B3.-29X2
IC01
CXD1178Q
CXD-1178Q
3CH 8 BIT D/A
Q01 2SA1037K AMP
Q02 2SA1037K AMP
Q03 2SA1037K AMP
Q04 2SA1037K BUFF
Q05 2SA1037K BUFF
Q06 2SA1037K BUFF
FL01 TH314LNKS-3991
FL02 H286LA1S-14967
FL03 H286LA1S-14967
CN0302 39 Y1
CN0302 40 RY1
CN0302 41 BY1
Y1
R-Y1
B-Y1
DIGIC
DIGIY
PIPY
PIPC
YS
YINMP
CINMP
YINMT
CINMT
IC504
SDA9205
3CH 8 BIT A/D
Q351 2SC2412K BUFF
Q352 2SC2412K BUFF
Q353 2SC2412K BUFF
Q354 2SA1037K AMP
Q356 2SA1037K AMP
Q358 2SA1037K AMP
Q505 2SC2603TP V REF
Q510 2SA1037K V REF
FL352 H286LA1S-150
FL353 H314LNKS-3995
FL355 H286LA1S-150
CN0302 37 BYIN
CN0302 35 RYIN
CN0302 36 YIN
CN0302 44 CLPW1
CN0302 43 PED1
18M CLKA
36M CLKB
VYSD
IC507 (1/6) MC74HC04AF
IC507 (2/6) MC74HC04AF
IC507 (3/6) MC74HC04AF
IC507 (4/6) MC74HC04AF
IC507 (5/6) MC74HC04AF
IC507 (6/6) MC74HC04AF
D01 DAP202K
CLP3
OEY
OE2
OE1
3.3V-2
5V-5
5V
9V

B3 (2/2) (DIGITAL COMB/CHROMA)


11
12
13
14
15
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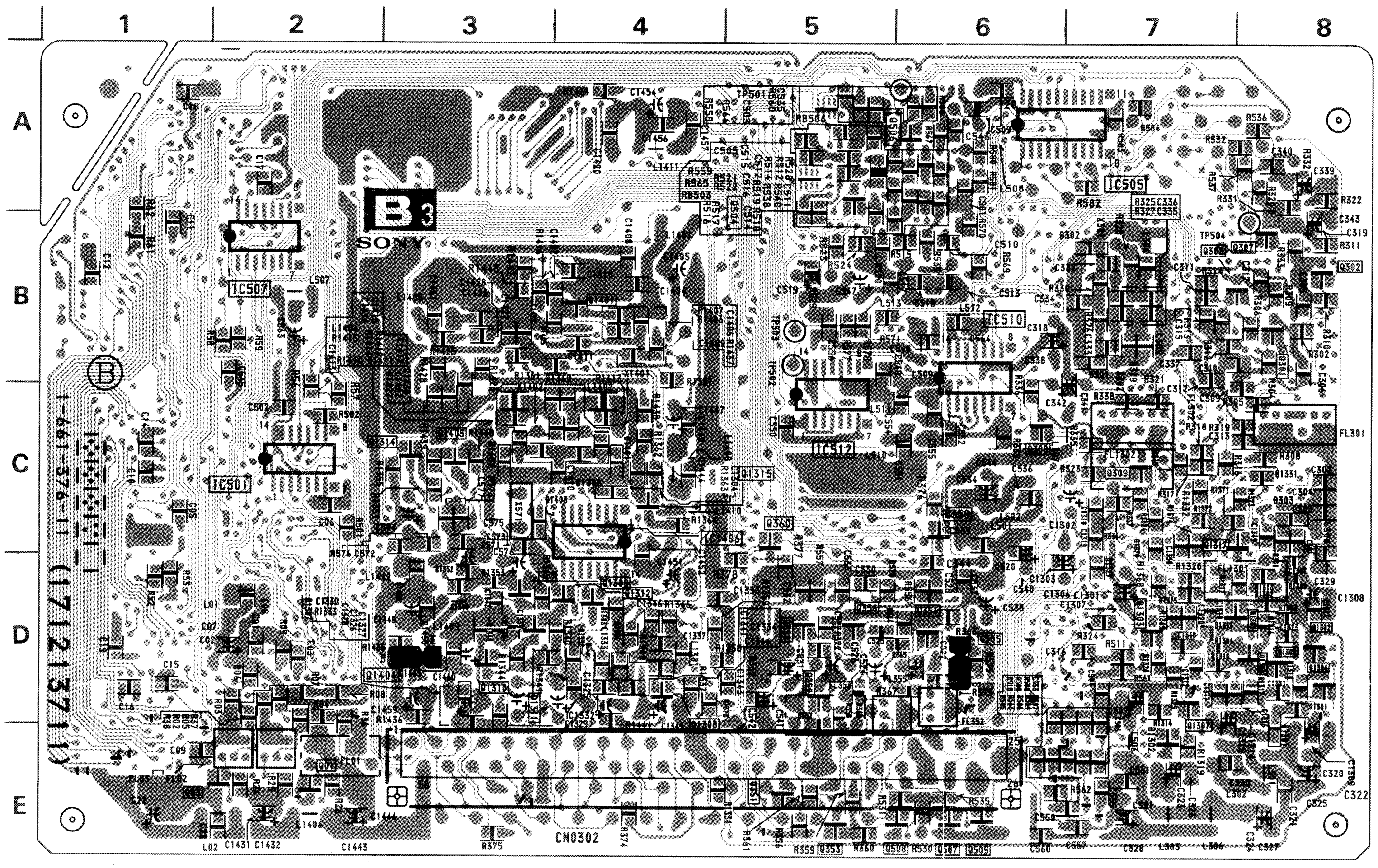
17
18
19
20
21
22
5V-3
C11 0.1 F:CHIP
C012 0.1 F:CHIP
IC05
CXK48324R
CXK-48324R
2.4M FIELD MEMORY
36M CLKB
18M CLKB
36M CLKA
C17 0.1 F:CHIP
C18 0.1 F:CHIP
C16 0.1 F:CHIP
C15 0.1 F:CHIP
IC04
CXK48324R
CXK-48324R
2.4M FIELD MEMORY
3.3V-2
R56 10k :CHIP
DIGIC
DIGIY
C06 0.1 F:CHIP
IC02
CXD2035R
CXD-2035R
ASPECT CONVERSION
&
LINE FLICKER REDUCTION
C14 0.1 F:CHIP
C10 0.1 F:CHIP
IC06
MB81C1501PFTN
C19 0.1 F:CHIP
G
F
V2
HD0

B3 [DIGITAL COMB/CHROMA]

B3 Board <Conductor Side>


1
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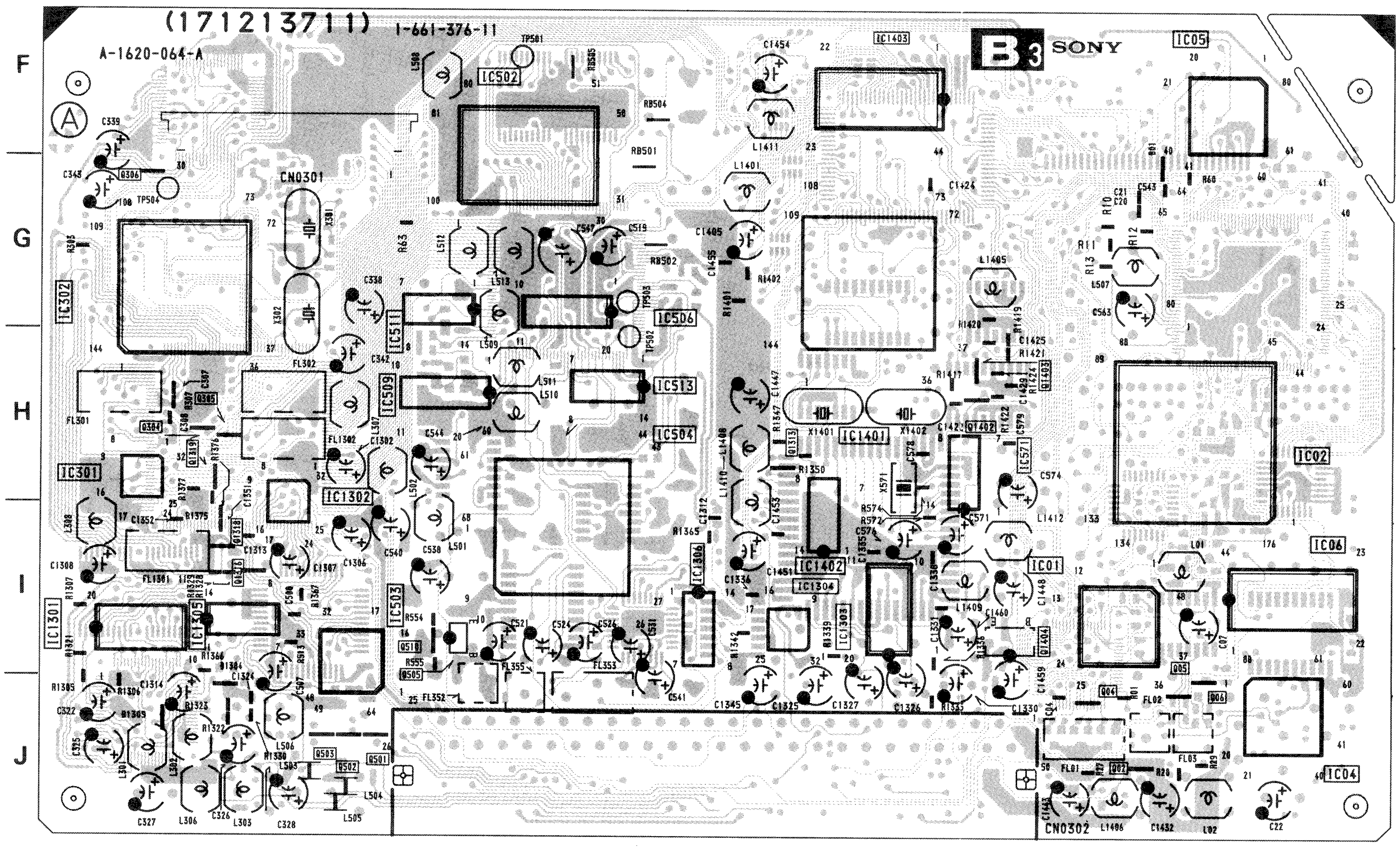
A
B
C
D
E
B3
SONY
1-661-376-11
(1712137111)
CN0302

B3 Board <Component Side>


(1712137111)
1-661-376-11
A-1620-064-A
B3
SONY
F
G
H
I
J
CN0301
CN0302

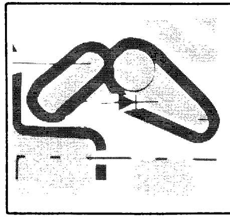
B3 BOARD

IC	
IC01	I-6
IC02	H-8
IC04	J-8
IC05	F-7
IC06	I-8
IC301	H-1
IC302	G-1
IC501	C-2
IC502	F-3
IC503	I-3
IC504	H-4
IC505	A-7
IC506	G-4
IC507	B-2
IC509	C-13
IC1301	I-1
IC1302	H-2
IC1305	I-1

TRANSISTOR	
Q01	E-2
Q02	J-7
Q03	E-1
Q04	I-7
Q05	I-7
Q06	I-7
Q301	B-8
Q302	B-8
Q303	B-7
Q304	H-1
Q305	H-1
Q306	G-1
Q307	B-8
Q308	C-6
Q309	C-7
Q351	E-5
Q352	D-5
Q353	E-5
Q354	D-6
Q356	D-5
Q358	D-5
Q359	C-6
Q360	C-5
Q501	J-2
Q502	J-2
Q503	J-2
Q504	A-5
Q505	D-6
Q506	A-5
Q507	E-6
Q508	E-6
Q509	E-6
Q510	I-3
Q1301	D-8
Q1302	D-8
Q1303	D-7
Q1304	D-8
Q1305	D-8
Q1306	D-8
Q1307	D-7
Q1316	I-2
Q1317	C-7
Q1318	I-2
Q1319	H-1

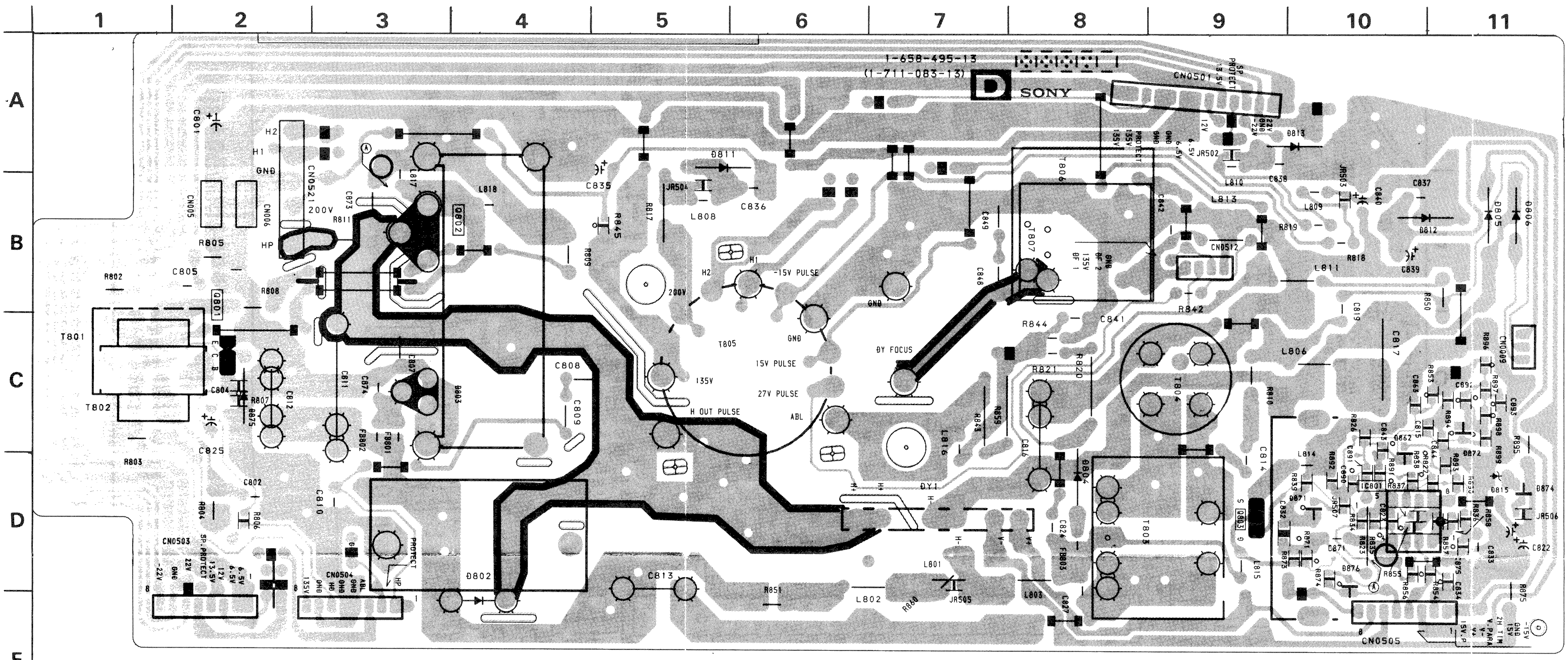
DIODE	
D01	F-7
D301	B-7
D302	B-7
D303	C-8
D1301	D-8
D1302	D-7
D1304	I-2
D1309	J-1

D [H OUT, PIN CORRECT]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D Board <Conductor Side>



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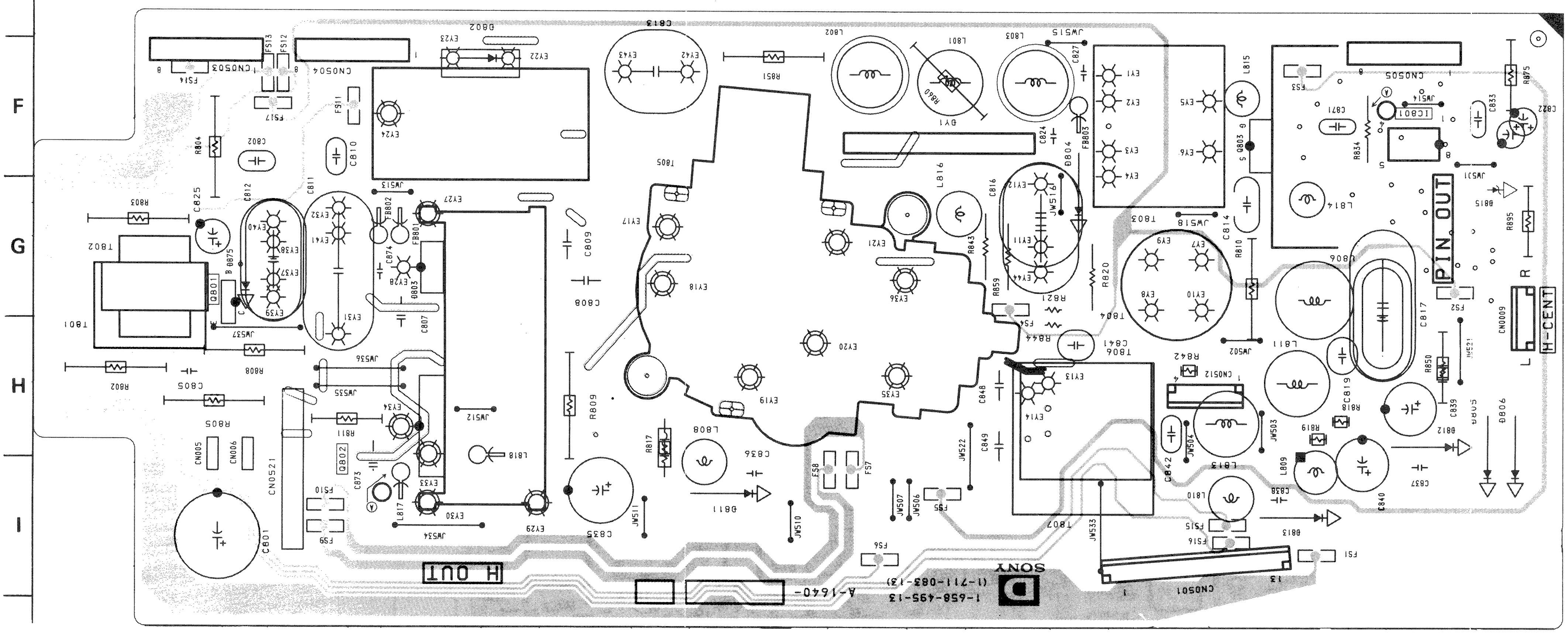
11
A
B
C
D
E
1-658-495-13
(1-711-083-13)
D SONY
CN0501
CN0503
CN0504
CN0505
CN0521
T801
T802
T803
T804
T805
T806
T807
H OUT PULSE
15V PULSE
27V PULSE
-15V PULSE
BY FOCUS
ABL
135V
200V
PROTECT

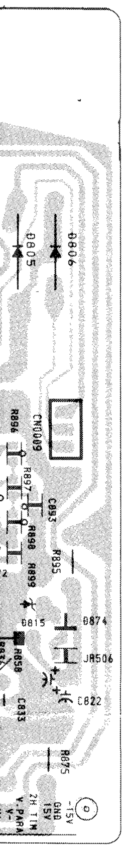
D Board <Component Side>

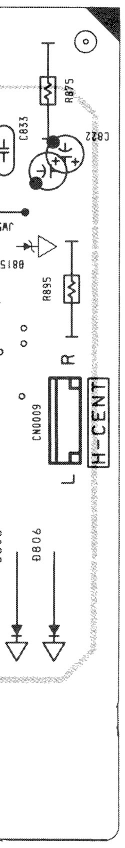


F
G
H
I
PIN OUT
H-CENT
H OUT
A-1640-
1-658-495-13
(1-711-083-13)
SONY
CN0501
CN0503
CN0504
CN0505
CN0521

MC-Service

11

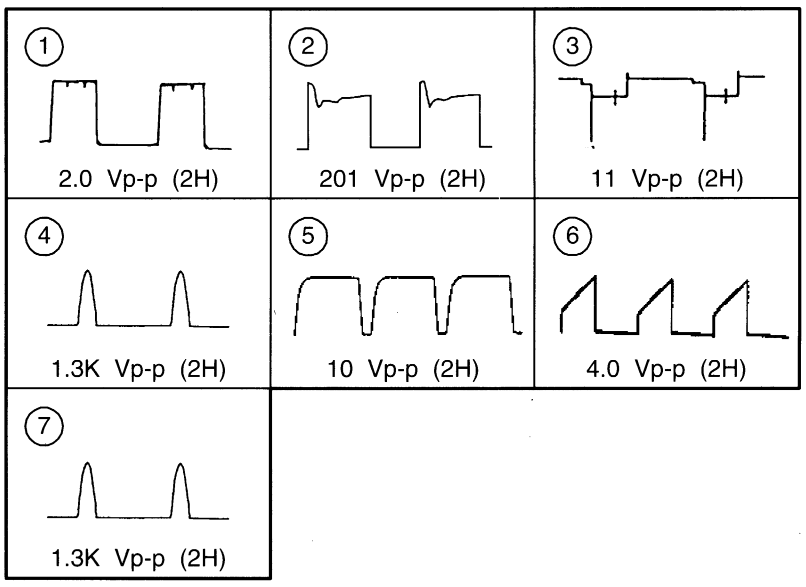

D805
D806
CN0009
R896
R897
C893
R898
R899
R835
D815
D874
JR506
C822
C833
R875
-15V
GND
15V
2H TIM
V.PARA
V-


R875
C833
C822
D815
R895
CN0009
R
L
H-CENT
D806

D BOARD

IC	
IC801	D-10
TRANSISTOR	
Q801	C-2
Q802	B-4
Q803	D-9
DIODE	
D802	E-4
D803	C-4
D804	D-8
D805	B-11
D806	B-11
D811	A-5
D812	B-11
D813	A-10
D815	D-11
D872	D-11
D874	D-11

WAVEFORMS D BOARD


① 2.0 Vp-p (2H)
② 201 Vp-p (2H)
③ 11 Vp-p (2H)
④ 1.3K Vp-p (2H)
⑤ 10 Vp-p (2H)
⑥ 4.0 Vp-p (2H)
⑦ 1.3K Vp-p (2H)

Ref.No.	Pin No.	Voltage (V)
IC801	1	1.2
	2	1.8
	3	1.6
	5	2.6
	6	1.2
	7	7.5
	8	9.5

Pin No. / Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q801	-0.5	109	0
Q803	7.5	23.5	0

MC-Service

1

A
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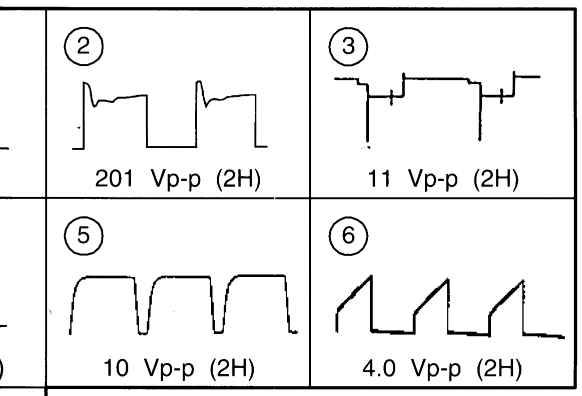
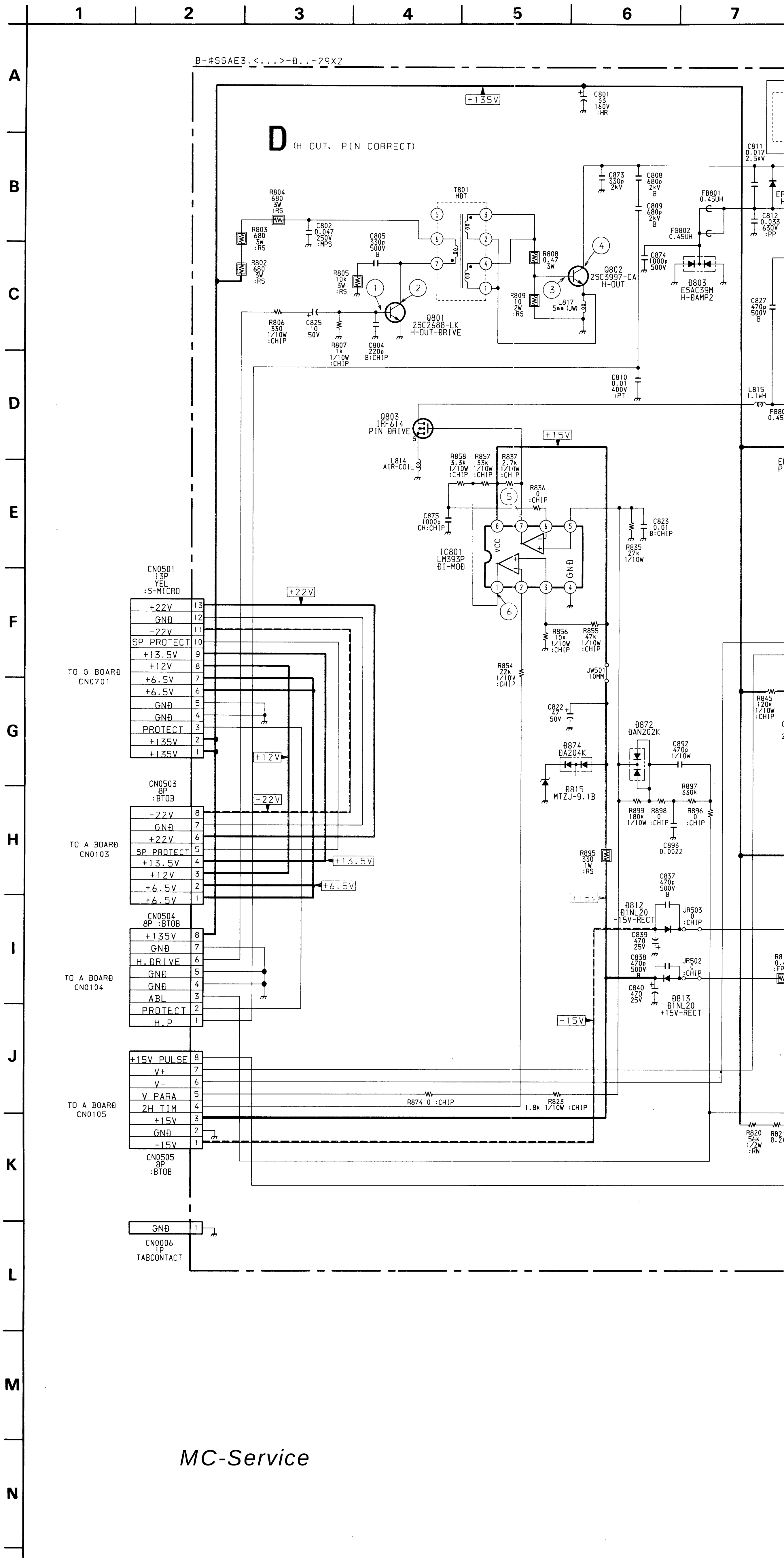
BOARD



ltage (V)
1.2
1.8
1.6
2.6
1.2
7.5
9.5

C) lector	(E) Emitter
09	0
3.5	0



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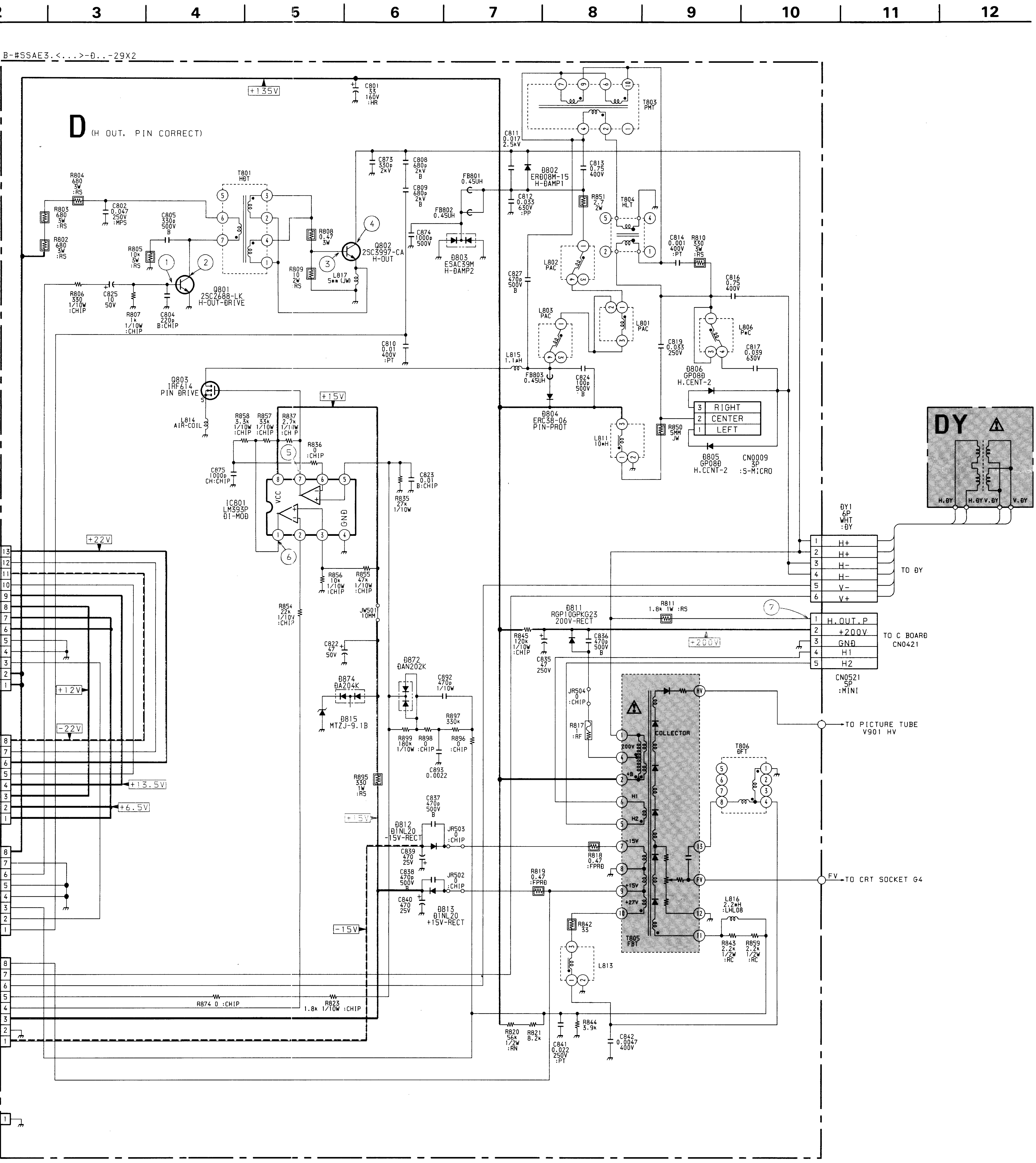
J
K
L
M
N
B-#SSAE3.<...>-D..-29X2
D (H OUT. PIN CORRECT)
+135V
C801 33 160V :HR
C811 0.017 2.5kV
C873 330p 2kV
C808 680p 2kV B
C809 680p 2kV B
FB801 0.45UH
FB802 0.45UH
C812 0.033 630V :PP
T801 HDT
R804 680 3W :RS
R803 680 3W :RS
R802 680 3W :RS
C802 0.047 250V :MPS
C805 330p 500V B
R805 10k 3W :RS
R808 0.47 3W
R809 10 2W :RS
L817 5** (JW)
Q802 2SC3997-CA H-OUT
C874 1000p 500V
D803 ESAC39M H-DAMP2
C827 470p 500V B
R806 330 1/10W :CHIP
C825 10 50V
R807 1k 1/10W :CHIP
C804 220p B:CHIP
Q801 2SC2688-LK H-OUT-DRIVE
C810 0.01 400V :PT
L815 1.1uH
Q803 IRF614 PIN DRIVE
L814 AIR-COIL
+15V
R858 3.3k 1/10W :CHIP
R857 33k 1/10W :CHIP
R837 2.7k 1/10W :CHIP
R836 0 :CHIP
C875 1000p CH:CHIP
C823 0.01 B:CHIP
R835 27k 1/10W
IC801 LM393P DI-MOD
VCC
GND
R856 10k 1/10W :CHIP
R855 47k 1/10W :CHIP
R854 22k 1/10V :CHIP
JW501 10MM
C822 47 50V
D872 DAN202K
C892 470p 1/10W
D874 DA204K
D815 MTZJ-9.1B
R897 330k
R899 180k 1/10W
R898 0 :CHIP
R896 0 :CHIP
C893 0.0022
R895 330 1W :RS
C837 470p 500V B
D812 D1NL20 -15V-RECT
JR503 0 :CHIP
C839 470 25V
C838 470p 500V
JR502 0 :CHIP
C840 470 25V
D813 D1NL20 +15V-RECT
-15V
R845 120k 1/10W :CHIP
R874 0 :CHIP
R823 1.8k 1/10W :CHIP
R820 56k 1/2W :RN
CN0501 13P YEL :S-MICRO
TO G BOARD CN0701
+22V
GND
-22V
SP PROTECT
+13.5V
+12V
+6.5V
+6.5V
GND
GND
PROTECT
+135V
+135V
+12V
-22V
CN0503 8P :BTOB
TO A BOARD CN0103
-22V
GND
+22V
SP PROTECT
+13.5V
+12V
+6.5V
+6.5V
+13.5V
+6.5V
CN0504 8P :BTOB
TO A BOARD CN0104
+135V
GND
H.DRIVE
GND
GND
ABL
PROTECT
H.P
TO A BOARD CN0105
+15V PULSE
V+
V-
V PARA
2H TIM
+15V
GND
-15V
CN0505 8P :BTOB
GND
CN0006 1P TABCONTACT


2
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4
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8
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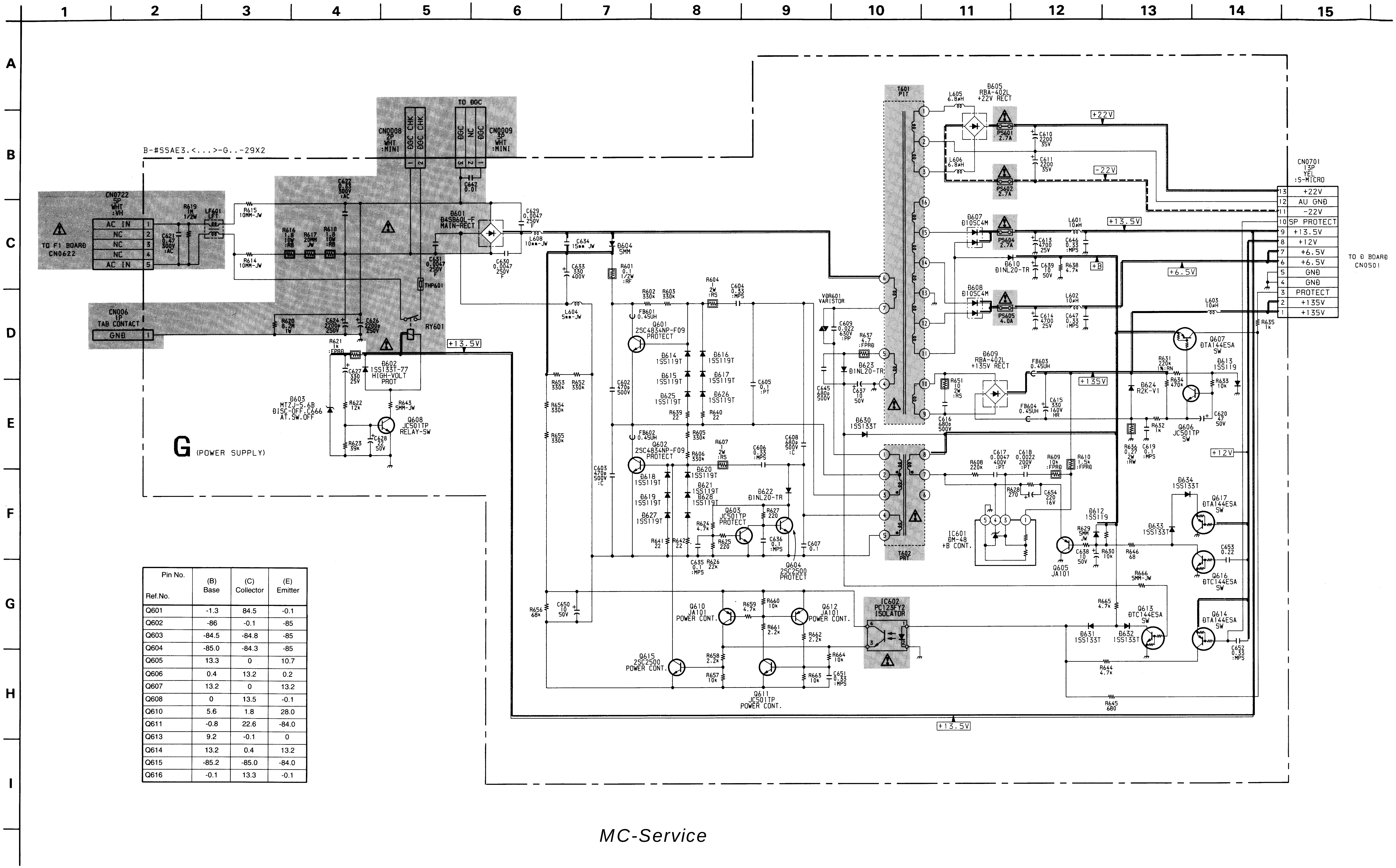
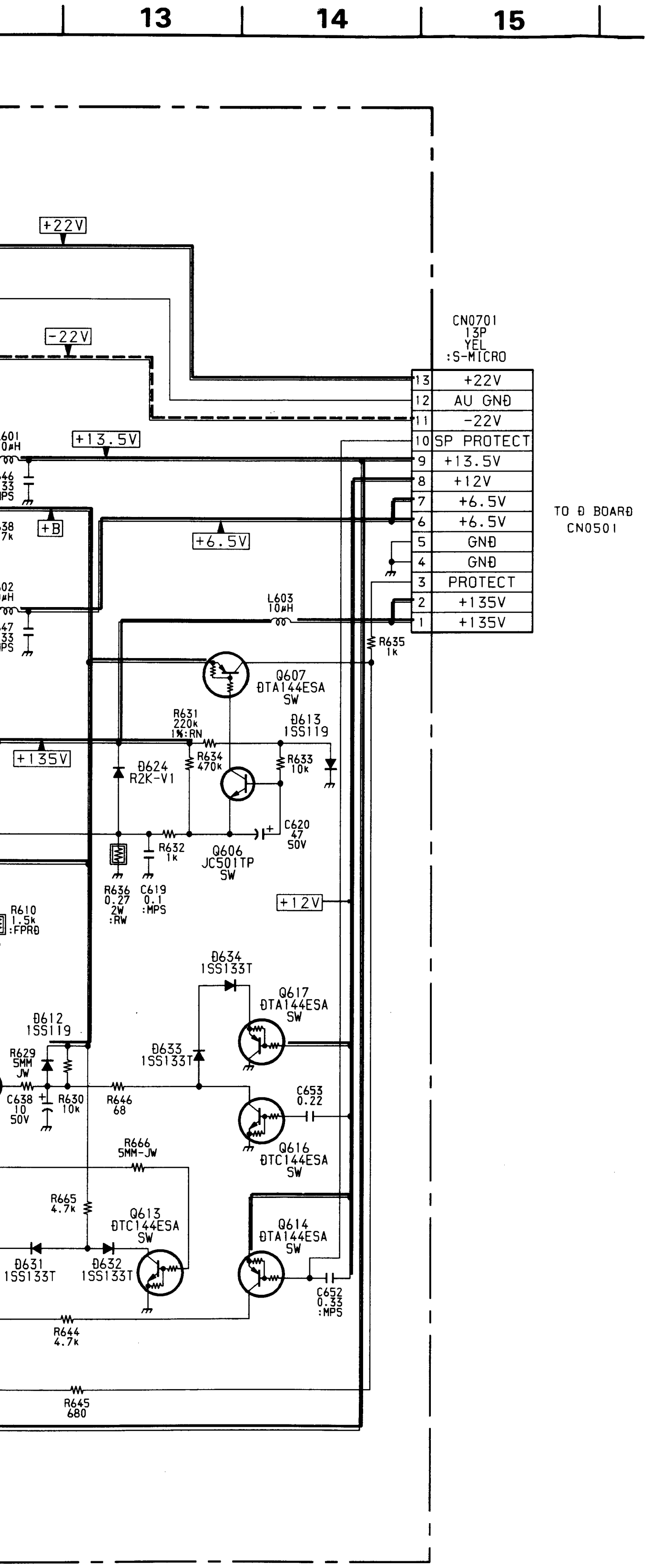
10
11
12
B-#SSAE3.<...>-D..-29X2
D (H OUT, PIN CORRECT)
+135V
+15V
+22V
+12V
-22V
+13.5V
+6.5V
+15V
-15V
+200V
T801 HDT
T803 PMT
T804 HLT
T805 FBT
T806 DFT
Q801 2SC2688-LK H-OUT-DRIVE
Q802 2SC3997-CA H-OUT
Q803 IRF614 PIN DRIVE
IC801 LM393P DI-MOD
D802 ERD08M-15 H-DAMP1
D803 ESAC39M H-DAMP2
D804 ERC38-06 PIN-PROT
D805 GP08D H.CENT-2
D806 GP08D H.CENT-2
D811 RGP10GPKG23 200V-RECT
D812 D1NL20 -15V-RECT
D813 D1NL20 +15V-RECT
D815 MTZJ-9.1B
D872 DAN202K
D874 DA204K
L801 PAC
L802 PAC
L803 PAC
L806 PAC
L811 10mH
L813
L814 AIR-COIL
L815 1.1μH
L816 2.2mH :LHL08
L817 5mm (JW)
FB801 0.45UH
FB802 0.45UH
FB803 0.45UH
CN0009 3P :S-MICRO
3 RIGHT
2 CENTER
1 LEFT
DY
H.DY
H.DY
V.DY
V.DY
DY1 6P WHT :DY
1 H+
2 H+
3 H-
4 H-
5 V-
6 V+
TO DY
1 H.OUT.P
2 +200V
3 GND
4 H1
5 H2
TO C BOARD CN0421
CN0521 5P :MINI
COLLECTOR
HV
TO PICTURE TUBE V901 HV
FV
TO CRT SOCKET G4
JW501 10MM
R874 0 :CHIP
R823 1.8k 1/10W :CHIP

MC-Service

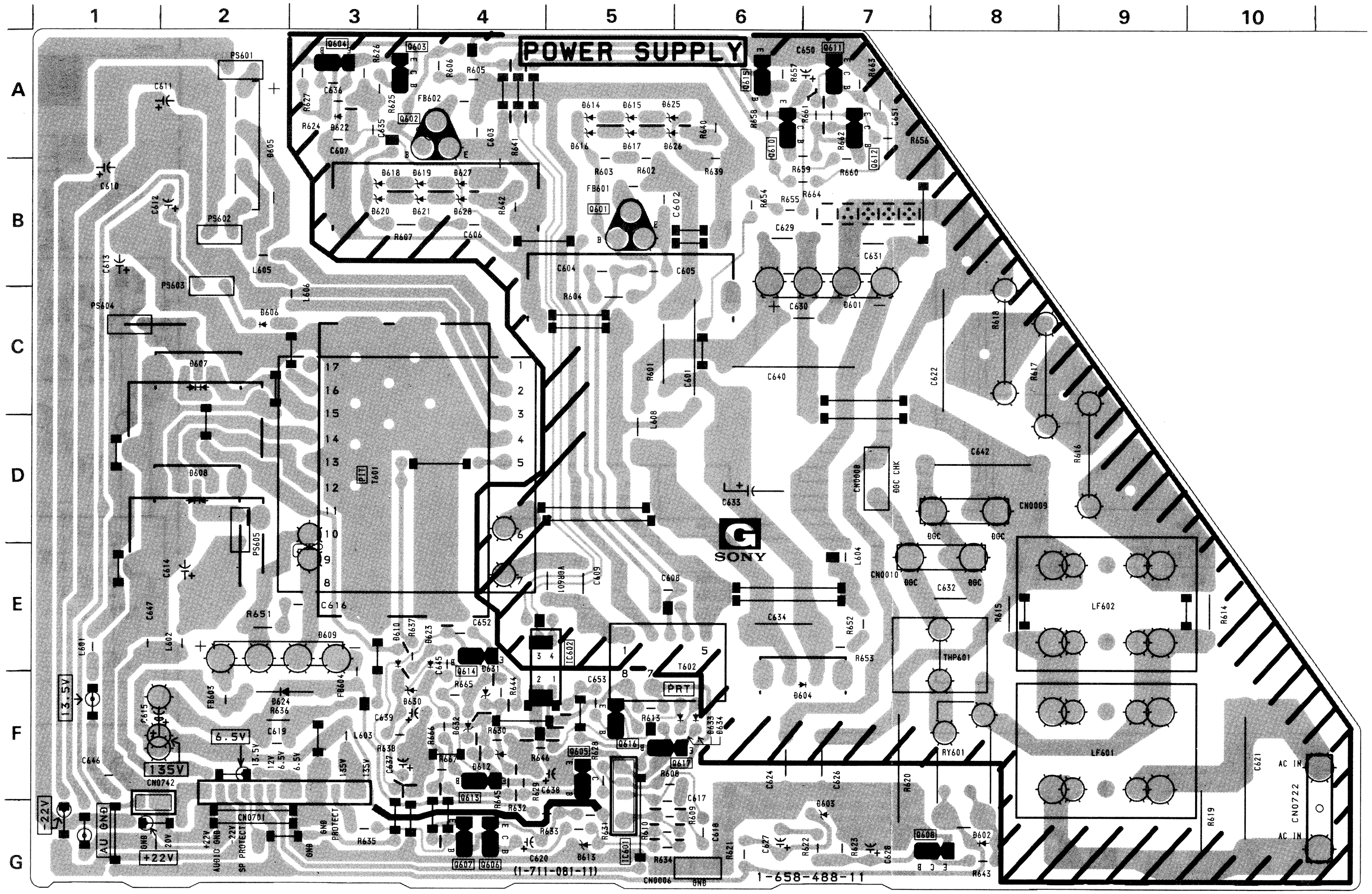

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I
B-#SSAE3.<...>-G..-29X2
G (POWER SUPPLY)
CN0722 5P WHT :VH
AC IN
NC
NC
NC
AC IN
TO F1 BOARD CN0622
CN006 1P TAB CONTACT
GND
R619 1M 1/2W
LF601 LFT
C421 0.47 300V :AC
R615 10MM-JW
R614 10MM-JW
R616 1.8 10W :RB
R617 20MM JW
R618 1.8 10W :RB
C622 0.33 300V :AC
CN0008 2P WHT :MINI
DGC CHK
DGC CHK
TO DGC
CN0009 3P WHT :MINI
DGC NC DGC
C642 0.01
D601 D4SB60L-F MAIN-RECT
C629 0.0047 250V F
L608 10mm-JW
C630 0.0047 250V F
C631 0.0047 250V F
THP601
R620 8.2M 1W
C624 2200p 250V
C626 2200p 250V
RY601
R621 1k :FPRD
+13.5V
D602 1SS133T-77 HIGH-VOLT PROT
C627 330 25V
D603 MTZJ-5.6B DISC-OFF.C666 AT.SW.OFF
R622 12k
R643 5MM-JW
Q608 JC501TP RELAY-SW
C628 22 50V
R623 39k
C634 15mm JW
D604 5MM
C633 330 400V
R601 0.1 1/2W :RF
L604 5mm-JW
R602 330k
R603 330k
R604 1 2W :RS
C604 0.33 :MPS
FB601 0.45UH
Q601 2SC4834NP-F09 PROTECT
D614 1SS119T
D616 1SS119T
D615 1SS119T
D617 1SS119T
D625 1SS119T
D626 1SS119T
R639 22
R640 22
C605 0.1 :PT
R653 330k
R652 330k
R654 330k
R655 330k
C602 470p 500V
C603 470p 500V :C
FB602 0.45UH
Q602 2SC4834NP-F09 PROTECT
R605 330k
R606 330k
R607 1 2W :RS
C606 0.33 :MPS
C608 680p 500V :C
D618 1SS119T
D620 1SS119T
D621 1SS119T
D628 1SS119T
D619 1SS119T
D627 1SS119T
D622 D1NL20-TR
Q603 JC501TP PROTECT
R627 220
R624 4.7k
R625 220
C636 0.1 :MPS
C607 0.1
R641 22
R642 22
C635 0.1 :MPS
R626 22k
Q604 2SC2500 PROTECT
R656 68k
C650 10 50V
Q610 JA101 POWER CONT.
R659 4.7k
R660 10k
Q612 JA101 POWER CONT.
R661 2.2k
R662 2.2k
Q615 2SC2500 POWER CONT.
R658 2.2k
R657 10k
R664 10k
R663 10k
C651 0.33 :MPS
Q611 JC501TP POWER CONT.
IC602 PC123FY2 ISOLATOR
VDR601 VARISTOR
C609 0.022 630V :PP
R637 4.7 :FPRD
D623 D1NL20-TR
C645 680p 500V
C637 10 50V
D630 1SS133T
T601 PIT
T602 PRT
L605 6.8uH
D605 RBA-402L +22V RECT
PS601 2.7A
C610 2200 35V
C611 2200 35V
L606 6.8uH
PS602 2.7A
+22V
-22V
D607 D10SC4M
PS604 2.7A
L601 10uH
+13.5V
C613 4700 25V
C646 0.33 :MPS
D610 D1NL20-TR
C639 10 50V
R638 4.7k
+B
+6.5V
D608 D10SC4M
PS605 4.0A
L602 10uH
C614 4700 25V
C647 0.33 :MPS
D609 RBA-402L +135V RECT
FB603 0.45UH
R651 10 2W :RS
+135V
FB604 0.45UH
C615 330 160V HR
C616 680p 500V
R608 220k
C617 0.0047 400V :PT
C618 0.0022 200V :PT
R609 10k :FPRD
R610 1.5k :FPRD
R628 270
C654 220 16V
IC601 BM-48 +B CONT.
D612 1SS119
R629 5MM JW
C638 10 50V
R630 10k
Q605 JA101
R646 68
R666 5MM-JW
R665 4.7k
D631 1SS133T
D632 1SS133T
Q613 DTC144ESA SW
R644 4.7k
R645 680
L603 10uH
R635 1k
Q607 DTA144ESA SW
R631 220k 1W:RN
R634 470k
D613 1SS119
R633 10k
D624 R2K-V1
R636 0.27 2W :RW
C619 0.1 :MPS
R632 1k
Q606 JC501TP SW
C620 47 50V
+12V
D634 1SS133T
Q617 DTA144ESA SW
D633 1SS133T
C653 0.22
Q616 DTC144ESA SW
Q614 DTA144ESA SW
C652 0.33 :MPS
CN0701 13P YEL :S-MICRO
13 +22V
12 AU GND
11 -22V
10 SP PROTECT
9 +13.5V
8 +12V
7 +6.5V
6 +6.5V
5 GND
4 GND
3 PROTECT
2 +135V
1 +135V
TO D BOARD CN0501

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q601	-1.3	84.5	-0.1
Q602	-86	-0.1	-85
Q603	-84.5	-84.8	-85
Q604	-85.0	-84.3	-85
Q605	13.3	0	10.7
Q606	0.4	13.2	0.2
Q607	13.2	0	13.2
Q608	0	13.5	-0.1
Q610	5.6	1.8	28.0
Q611	-0.8	22.6	-84.0
Q613	9.2	-0.1	0
Q614	13.2	0.4	13.2
Q615	-85.2	-85.0	-84.0
Q616	-0.1	13.3	-0.1


13
14
15
+22V
-22V
+13.5V
+B
+6.5V
+135V
+12V
CN0701
13P
YEL
:S-MICRO
13 +22V
12 AU GND
11 -22V
10 SP PROTECT
9 +13.5V
8 +12V
7 +6.5V
6 +6.5V
5 GND
4 GND
3 PROTECT
2 +135V
1 +135V
TO D BOARD
CN0501
L603
10µH
R635
1k
Q607
DTA144ESA
SW
R631
220k
1%:RN
D613
1SS119
D624
R2K-V1
R634
470k
R633
10k
C620
47
50V
R632
1k
Q606
JC501TP
SW
R636
0.27
2W
:RW
C619
0.1
:MPS
R610
1.5k
:FPRD
D634
1SS133T
Q617
DTA144ESA
SW
D612
1SS119
D633
1SS133T
R629
5MM
JW
C638
10
50V
R630
10k
R646
68
C653
0.22
R666
5MM-JW
Q616
DTC144ESA
SW
R665
4.7k
Q613
DTC144ESA
SW
Q614
DTA144ESA
SW
D631
1SS133T
D632
1SS133T
C652
0.33
:MPS
R644
4.7k
R645
680

G [POWER SUPPLY]

G Board


1
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9
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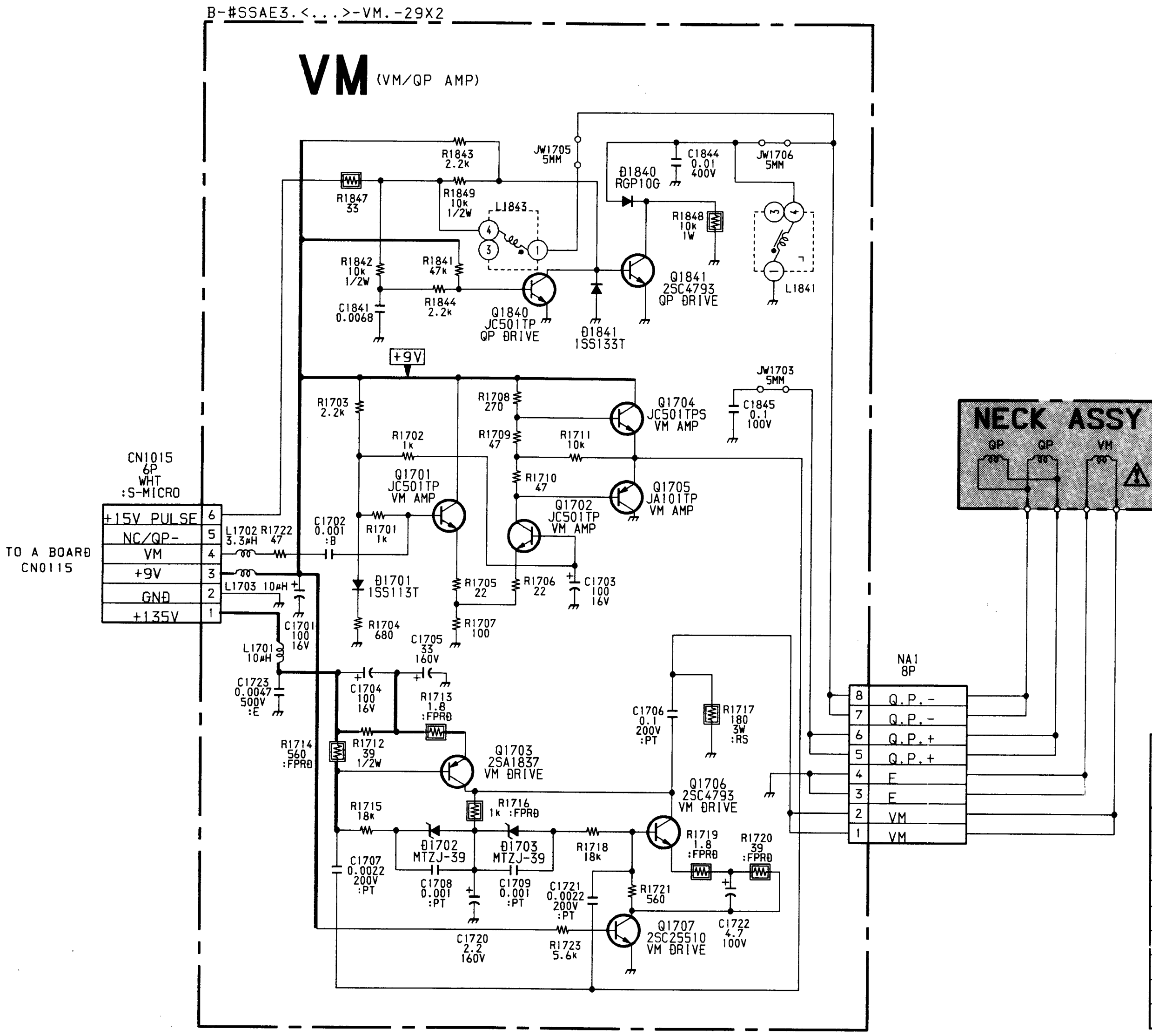
A
B
C
D
E
F
G
POWER SUPPLY
IC601
IC602
T601
T602
PRT
LF601
LF602
THP601
RY601
CN0722
AC IN
CN0701
CN0742
CN0006
CN0008
CN0009
CN0010
DGC CHK
DGC
SONY
13.5V
6.5V
135V
-22V
AU GND
+22V
GND
PROTECT
SP PROTECT
AUDIO GND
1-658-488-11
(1-711-081-11)

G BOARD

IC	
IC601	G-5
IC602	E-5
TRANSISTOR	
Q601	B-5
Q602	A-3
Q603	A-3
Q604	A-3
Q605	F-5
Q606	G-4
Q607	G-4
Q608	G-7
Q610	A-6
Q611	A-7
Q612	A-7
Q613	F-4
Q614	E-4
Q615	A-6
Q616	F-5
Q617	F-6
DIODE	
D601	C-7
D602	G-8
D603	F-7
D605	A-2
D607	C-2
D608	D-2
D609	E-3
D610	E-3
D612	F-4
D613	G-5
D614	A-5
D615	A-5
D616	A-5
D617	A-5
D618	B-3
D619	B-4
D620	B-3
D621	B-4
D622	A-3
D623	E-4
D624	F-2
D625	A-5
D626	A-5
D627	B-4
D628	B-4
D630	F-3
D631	E-4
D632	F-4
D633	F-6
D634	F-6

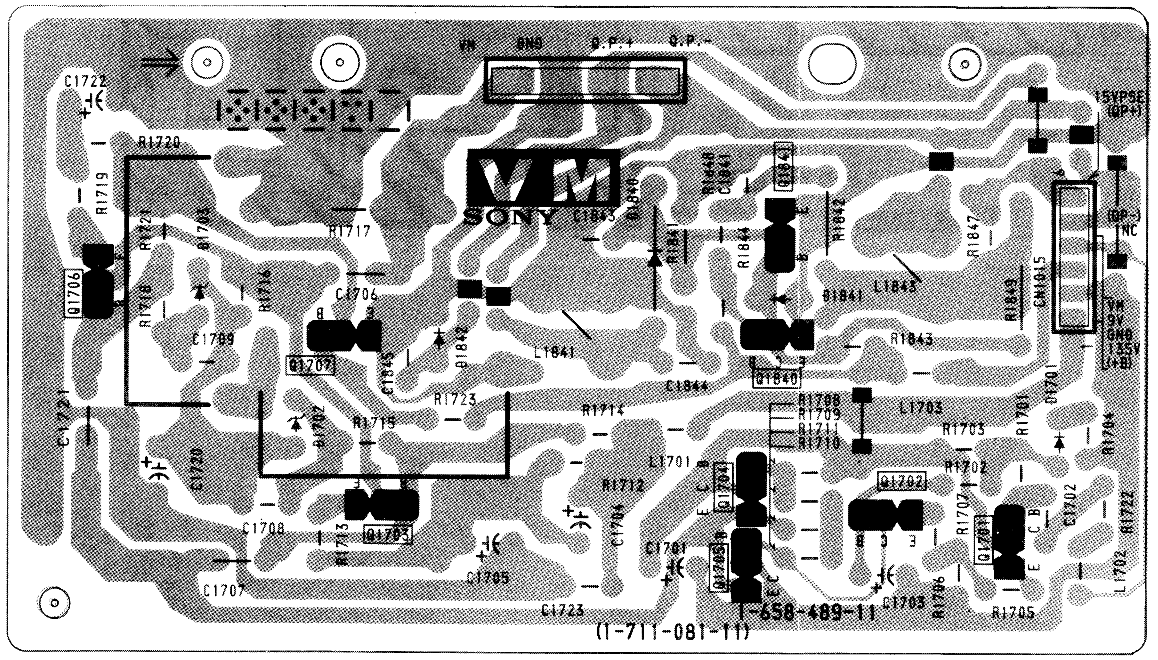
MC-Service

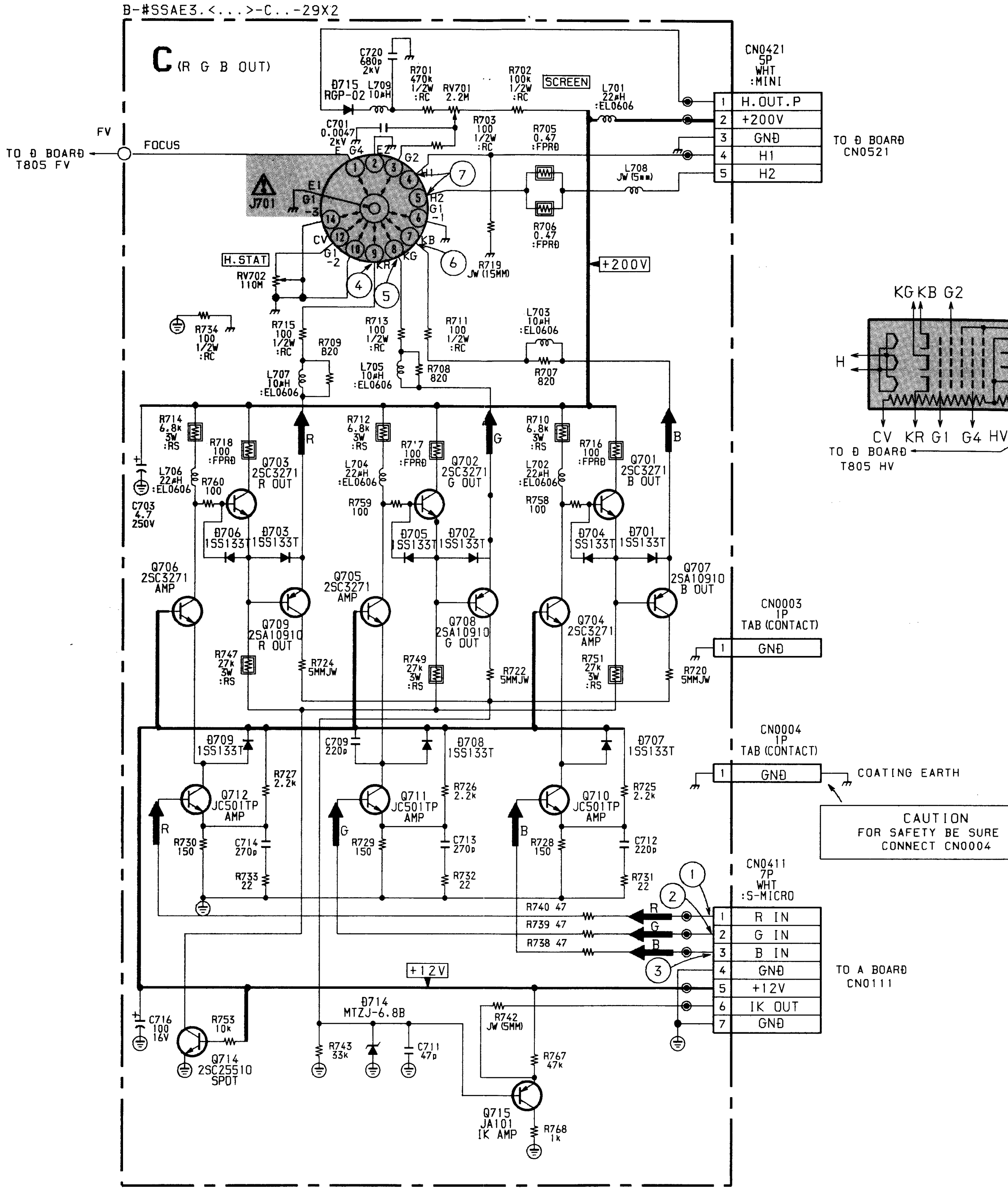
VM [VM AMP, QP DET]

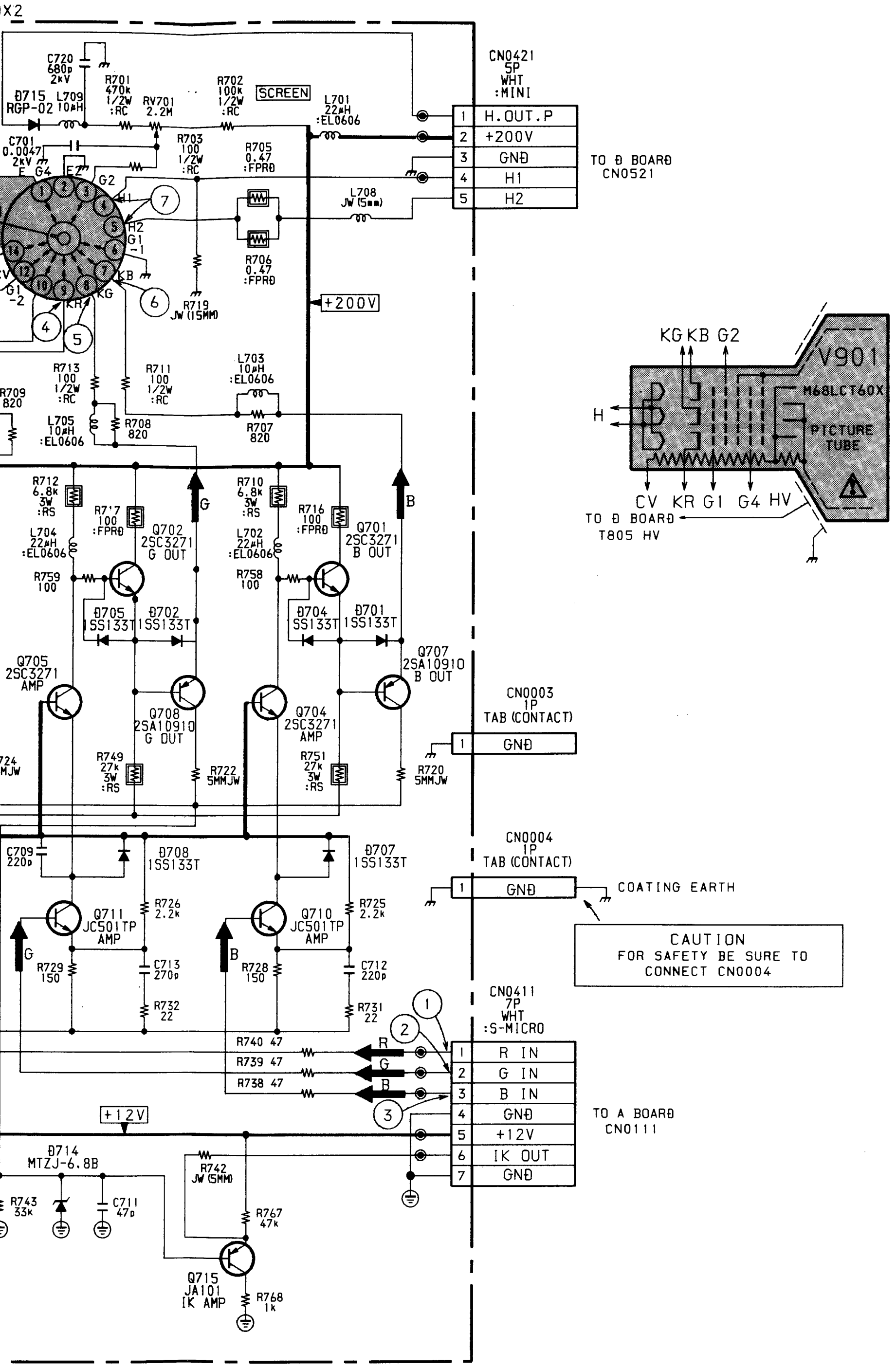

B-#SSAE3.<...>-VM.-29X2
VM (VM/QP AMP)
CN1015 6P WHT :S-MICRO
+15V PULSE
NC/QP-
VM
+9V
GND
+135V
TO A BOARD CN0115
R1843 2.2k
JW1705 5MM
JW1706 5MM
C1844 0.01 400V
D1840 RGP10G
R1847 33
R1849 10k 1/2W
L1843
R1848 10k 1W
L1841
R1842 10k 1/2W
R1841 47k
R1844 2.2k
C1841 0.0068
Q1840 JC501TP QP DRIVE
D1841 1SS133T
Q1841 2SC4793 QP DRIVE
+9V
R1703 2.2k
R1708 270
JW1703 5MM
Q1704 JC501TPS VM AMP
C1845 0.1 100V
R1702 1k
R1709 47
R1711 10k
Q1701 JC501TP VM AMP
R1710 47
Q1705 JA101TP VM AMP
Q1702 JC501TP VM AMP
L1702 3.3µH
R1722 47
C1702 0.001 :B
R1701 1k
L1703 10µH
D1701 1SS113T
R1705 22
R1706 22
C1703 100 16V
C1701 100 16V
R1704 680
C1705 33 160V
R1707 100
L1701 10µH
C1723 0.0047 500V :E
C1704 100 16V
R1713 1.8 :FPRD
R1714 560 :FPRD
R1712 39 1/2W
Q1703 2SA1837 VM DRIVE
C1706 0.1 200V :PT
R1717 180 3W :RS
Q1706 2SC4793 VM DRIVE
R1715 18k
R1716 1k :FPRD
D1702 MTZJ-39
D1703 MTZJ-39
R1718 18k
R1719 1.8 :FPRD
R1720 39 :FPRD
C1707 0.0022 200V :PT
C1708 0.001 :PT
C1709 0.001 :PT
C1721 0.0022 200V :PT
R1721 560
C1722 4.7 100V
C1720 2.2 160V
R1723 5.6k
Q1707 2SC2551D VM DRIVE
NA1 8P
Q.P.-
Q.P.-
Q.P.+
Q.P.+
E
E
VM
VM
NECK ASSY
QP QP VH

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q1701	2.5	9.0	1.8
Q1702	2.5	6.0	1.8
Q1703	135.0	55	0
Q1704	6.7	9.0	6.3
Q1705	6.0	0	6.3
Q1706	0.6	55.0	0
Q1707	0.7	0	0
Q1840	0	0	0
Q1841	0	0.2	0

VM Board


VM GND Q.P.+ Q.P.-
15VPSE (QP+)
(QP-) NC
VM 9V GND 135V (+B)
CN1015
VM SONY
C1722
R1720
R1719
R1721
R1717
Q1706
R1718
R1716
C1706
C1709
Q1707
C1845
D1842
L1841
C1843
D1840
R1841
R1848 C1841
Q1841
R1844
D1841
L1843
R1842
R1847
R1849
R1843
Q1840
C1844
R1723
R1715
R1714
D1702
C1720
C1721
R1713
Q1703
C1708
C1707
C1723
C1705
R1712
C1704
L1701
Q1704
Q1705
C1701
R1708 R1709 R1711 R1710
L1703
R1703
R1702
Q1702
R1707
Q1701
R1706
C1703
R1705
C1702
R1701
D1701
R1704
R1722
L1702
1-658-489-11
(1-711-081-11)

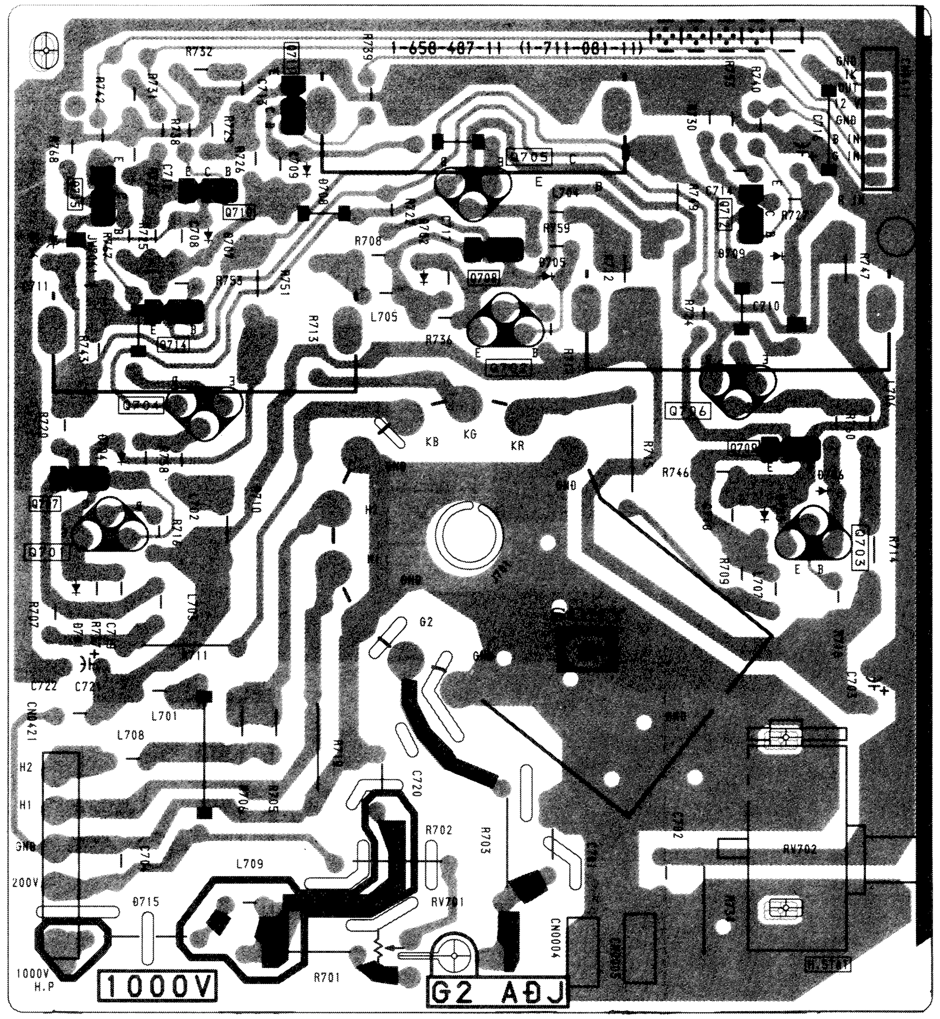

B-#SSAE3.<...>-C..-29X2
C (R G B OUT)
FV
FOCUS
TO D BOARD T805 FV
C720 680p 2kV
D715 RGP-02
L709 10µH
R701 470k 1/2W :RC
RV701 2.2M
R702 100k 1/2W :RC
SCREEN
L701 22µH :EL0606
C701 0.0047 2kV
R703 100 1/2W :RC
R705 0.47 :FPRD
R706 0.47 :FPRD
L708 JW (5mm)
J701
H.STAT
RV702 110M
R719 JW (15MM)
+200V
CN0421 5P WHT :MINI
H.OUT.P
+200V
GND
H1
H2
TO D BOARD CN0521
KG KB G2
H
CV KR G1 G4 HV
TO D BOARD T805 HV
R734 100 1/2W :RC
R715 100 1/2W :RC
R709 820
R713 100 1/2W :RC
R711 100 1/2W :RC
L703 10µH :EL0606
L707 10µH :EL0606
L705 10µH :EL0606
R708 820
R707 820
R714 6.8k 3W :RS
R718 100 :FPRD
Q703 2SC3271 R OUT
R712 6.8k 3W :RS
R717 100 :FPRD
Q702 2SC3271 G OUT
R710 6.8k 3W :RS
R716 100 :FPRD
Q701 2SC3271 B OUT
L706 22µH :EL0606
R760 100
C703 4.7 250V
L704 22µH :EL0606
R759 100
L702 22µH :EL0606
R758 100
D706 1SS133T
D703 1SS133T
D705 1SS133T
D702 1SS133T
D704 1SS133T
D701 1SS133T
Q706 2SC3271 AMP
Q705 2SC3271 AMP
Q709 2SA1091O R OUT
Q708 2SA1091O G OUT
Q704 2SC3271 AMP
Q707 2SA1091O B OUT
CN0003 1P TAB (CONTACT)
GND
R747 27k 3W :RS
R724 5MMJW
R749 27k 3W :RS
R722 5MMJW
R751 27k 3W :RS
R720 5MMJW
CN0004 1P TAB (CONTACT)
GND
COATING EARTH
CAUTION FOR SAFETY BE SURE CONNECT CN0004
D709 1SS133T
D708 1SS133T
D707 1SS133T
C709 220p
R727 2.2k
R726 2.2k
R725 2.2k
Q712 JC501TP AMP
Q711 JC501TP AMP
Q710 JC501TP AMP
R730 150
C714 270p
R729 150
C713 270p
R728 150
C712 220p
R733 22
R732 22
R731 22
R740 47
R739 47
R738 47
CN0411 7P WHT :S-MICRO
R IN
G IN
B IN
GND
+12V
IK OUT
GND
TO A BOARD CN0111
+12V
C716 100 16V
R753 10k
D714 MTZJ-6.8B
R743 33k
C711 47p
R742 JW (5MM)
R767 47k
Q714 2SC2551O SPOT
Q715 JA101 IK AMP
R768 1k


CN0421
5P
WHT
:MINI
H.OUT.P
+200V
GND
H1
H2
TO D BOARD
CN0521
SCREEN
C720
680p
2kV
R701
470k
RV701
2.2M
R702
100k
D715
RGP-02
L709
10μH
C701
0.0047
2kV
L701
22μH
:EL0606
R703
100
R705
0.47
:FPRD
R706
0.47
:FPRD
L708
JW (5mm)
R719
JW (15MM)
+200V
KG KB G2
V901
M68LCT60X
PICTURE TUBE
H
CV KR G1 G4 HV
TO D BOARD
T805 HV
R713
100
R711
100
L703
10μH
:EL0606
R709
820
L705
10μH
:EL0606
R708
820
R707
820
R712
6.8k
3W
:RS
R717
100
:FPRD
R710
6.8k
3W
:RS
R716
100
:FPRD
L704
22μH
:EL0606
Q702
2SC3271
G OUT
L702
22μH
:EL0606
Q701
2SC3271
B OUT
R759
100
R758
100
D705
1SS133T
D702
1SS133T
D704
1SS133T
D701
1SS133T
Q705
2SC3271
AMP
Q708
2SA1091O
G OUT
Q704
2SC3271
AMP
Q707
2SA1091O
B OUT
CN0003
1P
TAB (CONTACT)
GND
R749
27k
3W
:RS
R722
5MMJW
R751
27k
3W
:RS
R720
5MMJW
C709
220p
D708
1SS133T
D707
1SS133T
CN0004
1P
TAB (CONTACT)
GND
COATING EARTH
Q711
JC501TP
AMP
Q710
JC501TP
AMP
R726
2.2k
R725
2.2k
C713
270p
C712
220p
R729
150
R728
150
R732
22
R731
22
CAUTION
FOR SAFETY BE SURE TO
CONNECT CN0004
CN0411
7P
WHT
:S-MICRO
R740 47
R739 47
R738 47
R IN
G IN
B IN
GND
+12V
IK OUT
GND
TO A BOARD
CN0111
+12V
D714
MTZJ-6.8B
R743
33k
C711
47p
R742
JW (5MM)
R767
47k
Q715
JA101
IK AMP
R768
1k

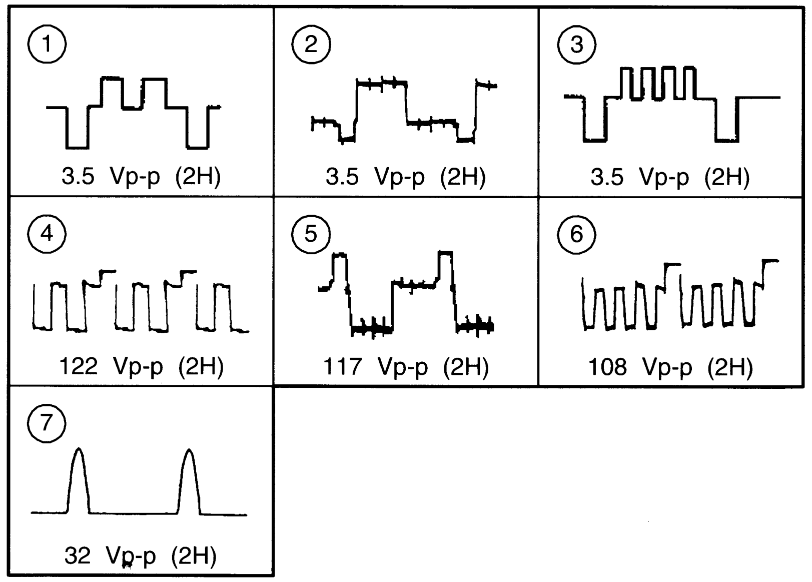
Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q701	155	204	159
Q702	146	204	151
Q703	156	203	156
Q704	12.0	155	11.5
Q705	12.0	144	11.5
Q706	12.0	151	11.5
Q707	158	5.5	176
Q708	151	5.3	173
Q709	156	5.5	168
Q710	2.1	11.4	1.7
Q711	2.2	11.4	1.8
Q712	2.1	11.4	1.7
Q714	0.7	0.1	0
Q715	5.5	0.1	3.2

C [RGB OUT]

C Board

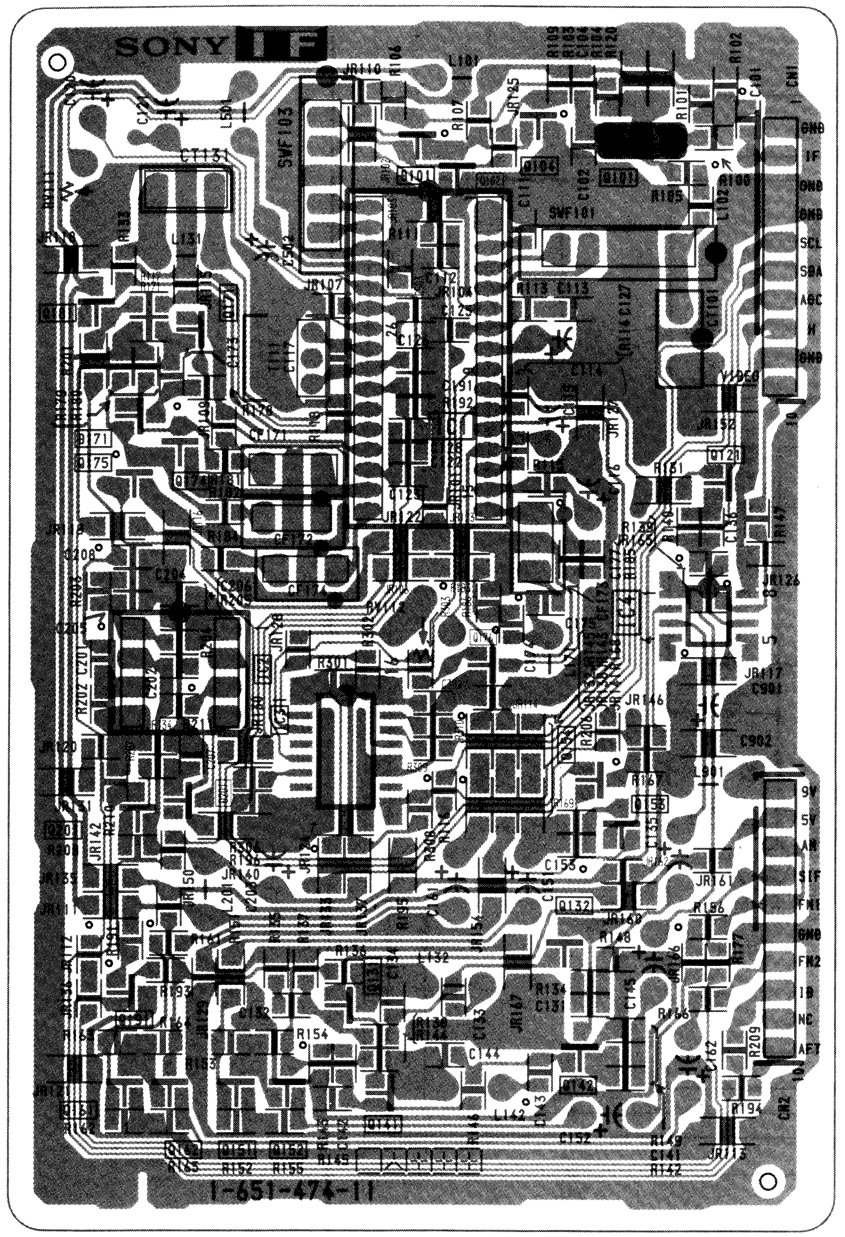

1-658-487-11 (1-711-081-11)
1000V
G2 ADJ
RV701
RV702
KB
KG
KR
G2
L701
L708
L709
L705
D715
CN0421
CN0004
1000V
H.P
200V
GND
H1
H2

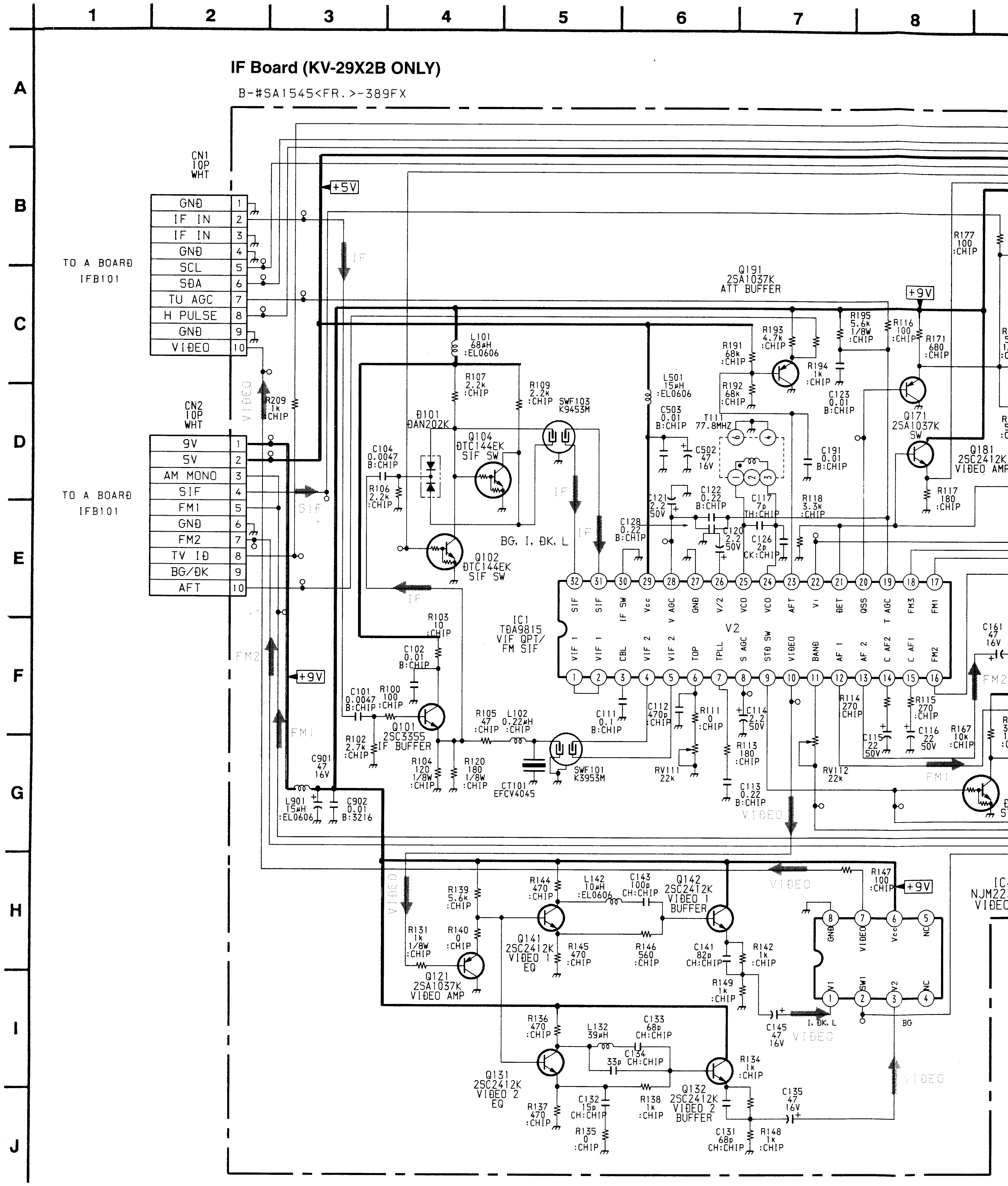
WAVEFORMS C BOARD



IF [VIF, SIF]

IFH-389FX (KV-29X2B ONLY)


SONY IF
1-651-474-11
GND
IF
GND
SCL
SDA
AGC
H
GND
9V
5V
AM
SIF
FM1
GND
FM2
IB
NC
AFT
CN1
CN2
SWF103
SWF101
CT131
L131
L501
L181
L901
IC1
T111

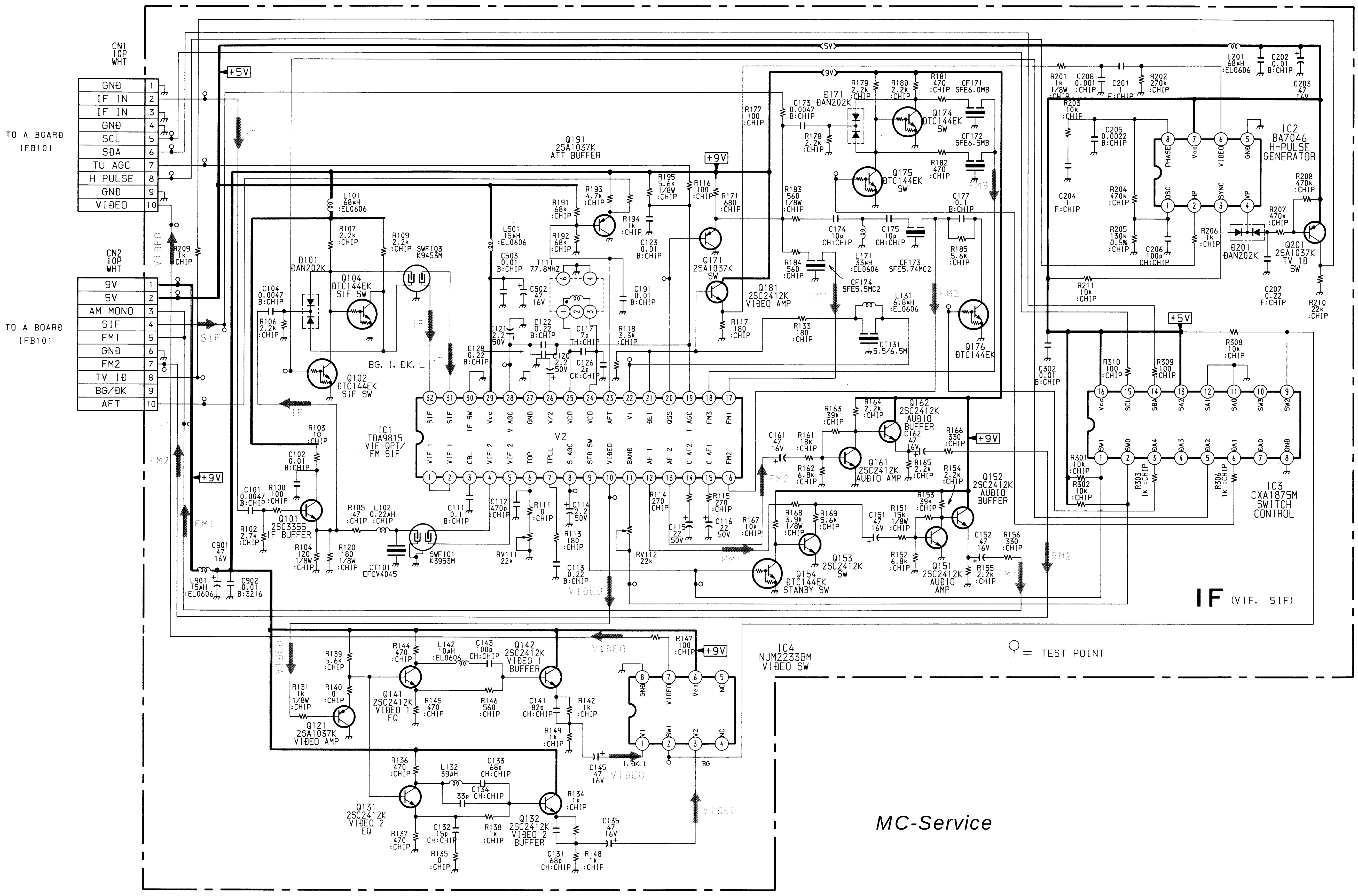

IF Board (KV-29X2B ONLY)

B-#SA1545<FR.>-389FX

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
CN1 10P WHT
GND 1
IF IN 2
IF IN 3
GND 4
SCL 5
SDA 6
TU AGC 7
H PULSE 8
GND 9
VIDEO 10
TO A BOARD IFB101
CN2 10P WHT
9V 1
5V 2
AM MONO 3
SIF 4
FM1 5
GND 6
FM2 7
TV ID 8
BG/DK 9
AFT 10
TO A BOARD IFB101
+5V
+9V
IF
SIF
FM1
FM2
VIDEO
L101 68µH :EL0606
R107 2.2k :CHIP
R109 2.2k :CHIP
SWF103 K9453M
D101 DAN202K
Q104 DTC144EK SIF SW
C104 0.0047 B:CHIP
R106 2.2k :CHIP
Q102 DTC144EK SIF SW
BG, I, DK, L
R209 1k :CHIP
L501 15µH :EL0606
C503 0.01 B:CHIP
C502 47 16V
T111 77.8MHZ
C121 2.2 50V
C122 0.22 B:CHIP
C128 0.22 B:CHIP
C117 7p TH:CHIP
C120 2.2 50V
C126 2p CK:CHIP
Q191 2SA1037K ATT BUFFER
R191 68k :CHIP
R192 68k :CHIP
R193 4.7k :CHIP
R194 1k :CHIP
R195 5.6k 1/8W :CHIP
C123 0.01 B:CHIP
C191 0.01 B:CHIP
R118 3.3k :CHIP
R116 100 :CHIP
R171 680 :CHIP
Q171 2SA1037K SW
Q181 2SC2412K VIDEO AMP
R117 180 :CHIP
R177 100 :CHIP
IC1 TBA9815 VIF QPT/ FM SIF
SIF SIF IF SW Vcc V AGC GND V/2 VCO VCO AFT Vi DET QSS T AGC FM3 FM1
VIF 1 VIF 1 CBL VIF 2 VIF 2 TOP TPLL S AGC STD SW VIDEO BAND AF 1 AF 2 C AF2 C AF1 FM2
V2
R103 10 :CHIP
C102 0.01 B:CHIP
C101 0.0047 B:CHIP
R100 100 :CHIP
Q101 2SC3355 IF BUFFER
R102 2.7k :CHIP
R104 120 1/8W :CHIP
R105 47 :CHIP
L102 0.22µH :CHIP
R120 180 1/8W :CHIP
CT101 EFCV4045
SWF101 K3953M
C111 0.1 B:CHIP
C112 470p :CHIP
R111 0 :CHIP
RV111 22k
C114 2.2 50V
R113 180 :CHIP
C113 0.22 B:CHIP
R114 270 :CHIP
C115 22 50V
R115 270 :CHIP
C116 22 50V
R167 10k :CHIP
RV112 22k
C161 47 16V
C901 47 16V
L901 15µH :EL0606
C902 0.01 B:3216
R147 100 :CHIP
IC NJM22 VIDEO
R139 5.6k :CHIP
R144 470 :CHIP
L142 10µH :EL0606
C143 100p CH:CHIP
Q142 2SC2412K VIDEO 1 BUFFER
R131 1k 1/8W :CHIP
R140 0 :CHIP
Q141 2SC2412K VIDEO 1 EQ
R145 470 :CHIP
R146 560 :CHIP
C141 82p CH:CHIP
R142 1k :CHIP
R149 1k :CHIP
Q121 2SA1037K VIDEO AMP
GND VIDEO Vcc NC
V1 SW1 V2 NC
I, DK, L
BG
C145 47 16V
R136 470 :CHIP
L132 39µH
C133 68p CH:CHIP
C134 33p CH:CHIP
Q131 2SC2412K VIDEO 2 EQ
R134 1k :CHIP
R137 470 :CHIP
C132 15p CH:CHIP
R138 1k :CHIP
Q132 2SC2412K VIDEO 2 BUFFER
C135 47 16V
R135 0 :CHIP
C131 68p CH:CHIP
R148 1k :CHIP

IF Board (KV-29X2B ONLY)

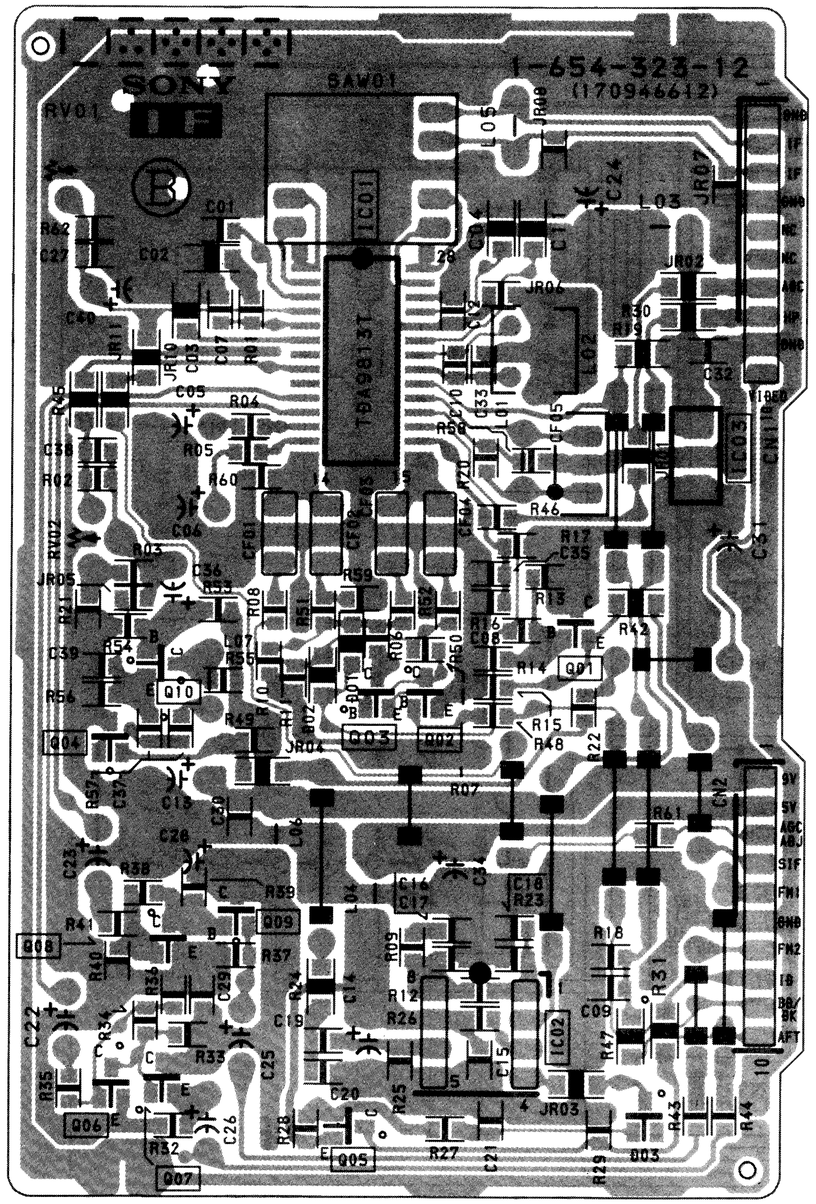
B-#SA1545<FR.>-389FX


CN1 10P WHT
TO A BOARD IFB101
GND
IF IN
IF IN
GND
SCL
SDA
TU AGC
H PULSE
GND
VIDEO
CN2 10P WHT
TO A BOARD IFB101
9V
5V
AM MONO
SIF
FM1
GND
FM2
TV ID
BG/DK
AFT
+5V
+9V
5V
9V
IF
SIF
VIDEO
FM1
FM2
FM3
L101 68μH :EL0606
R107 2.2k :CHIP
R109 2.2k :CHIP
SWF103 K9453M
D101 DAN202K
Q104 DTC144EK SIF SW
C104 0.0047 B:CHIP
R106 2.2k :CHIP
Q102 DTC144EK SIF SW
BG, I, DK, L
R103 10 :CHIP
C102 0.01 B:CHIP
C101 0.0047 B:CHIP
R100 100 :CHIP
R102 2.7k :CHIP
Q101 2SC3355 IF BUFFER
R104 120 1/8W :CHIP
R105 47 :CHIP
L102 0.22μH :CHIP
R120 180 1/8W :CHIP
CT101 EFCV4045
SWF101 K3953M
C901 47 16V
L901 15μH :EL0606
C902 0.01 B:3216
R209 1k :CHIP
Q191 2SA1037K ATT BUFFER
L501 15μH :EL0606
C503 0.01 B:CHIP
C502 47 16V
T111 77.8MHZ
R191 68k :CHIP
R192 68k :CHIP
R193 4.7k :CHIP
R194 1k :CHIP
R195 5.6k 1/8W :CHIP
C123 0.01 B:CHIP
C191 0.01 B:CHIP
R118 3.3k :CHIP
C121 2.2 50V
C122 0.22 B:CHIP
C117 7p TH:CHIP
C120 2.2 50V
C126 2p CK:CHIP
C128 0.22 B:CHIP
IC1 TDA9815 VIF QPT/ FM SIF
V2
SIF IF SW Vcc V AGC GND V/2 VCO VCO AFT Vi DET QSS T AGC FM3 FM1
VIF 1 VIF 1 CBL VIF 2 VIF 2 TOP TPLL S AGC STD SW VIDEO BAND AF 1 AF 2 C AF2 C AF1 FM2
C111 0.1 B:CHIP
C112 470p :CHIP
R111 0 :CHIP
RV111 22k
C114 2.2 50V
R113 180 :CHIP
C113 0.22 B:CHIP
RV112 22k
R114 270 :CHIP
C115 22 50V
R115 270 :CHIP
C116 22 50V
R116 100 :CHIP
R171 680 :CHIP
Q171 2SA1037K SW
Q181 2SC2412K VIDEO AMP
R117 180 :CHIP
R177 100 :CHIP
C173 0.0047 B:CHIP
D171 DAN202K
R178 2.2k :CHIP
R179 2.2k :CHIP
R180 2.2k :CHIP
R181 470 :CHIP
CF171 SFE6.0MB
Q174 DTC144EK SW
CF172 SFE6.5MB
R182 470 :CHIP
Q175 DTC144EK SW
R183 560 1/8W :CHIP
C177 0.1 B:CHIP
C174 10p CH:CHIP
C175 10p CH:CHIP
R185 5.6k :CHIP
R184 560 :CHIP
L171 33μH :EL0606
CF173 SFE5.74MC2
CF174 SFE5.5MC2
L131 6.8μH :EL0606
R133 180 :CHIP
CT131 5.5/6.5M
Q176 DTC144EK
R163 39k :CHIP
R164 2.2k :CHIP
Q162 2SC2412K AUDIO BUFFER
C162 47 16V
R166 330 :CHIP
C161 47 16V
R161 18k :CHIP
R162 6.8k :CHIP
Q161 2SC2412K AUDIO AMP
R165 2.2k :CHIP
R154 2.2k :CHIP
Q152 2SC2412K AUDIO BUFFER
R153 39k :CHIP
R168 3.9k 1/8W :CHIP
R169 5.6k :CHIP
R167 10k :CHIP
Q153 2SC2412K SW
Q154 DTC144EK STANBY SW
C151 47 16V
R151 15k 1/8W :CHIP
R152 6.8k :CHIP
Q151 2SC2412K AUDIO AMP
C152 47 16V
R156 330 :CHIP
R155 2.2k :CHIP
R201 1k 1/8W :CHIP
C208 0.001 :CHIP
C201 1 F:CHIP
R202 270k :CHIP
L201 68μH :EL0606
C202 0.01 B:CHIP
C203 47 16V
R203 10k :CHIP
C205 0.0022 B:CHIP
IC2 BA7046 H-PULSE GENERATOR
PHASE Vcc VIDEO GND
OSC HP SYNC VP
C204 1 F:CHIP
R204 470k :CHIP
R205 130k 0.5% :CHIP
C206 100p CH:CHIP
R206 1k :CHIP
D201 DAN202K
R207 470k :CHIP
R208 470k :CHIP
Q201 2SA1037K TV ID SW
R211 10k :CHIP
C207 0.22 F:CHIP
R210 22k :CHIP
C302 0.01 B:CHIP
R310 100 :CHIP
R309 100 :CHIP
R308 10k :CHIP
Vcc SCL SDA SA2 SA1 SA0 SW3 SW2
SW1 SW0 DA4 DA3 DA2 DA1 DA0 GND
R301 10k :CHIP
R302 10k :CHIP
R303 1k :CHIP
R306 1k :CHIP
IC3 CXA1875M SWITCH CONTROL
IF (VIF, SIF)
= TEST POINT
R139 5.6k :CHIP
R131 1k 1/8W :CHIP
R140 0 :CHIP
Q121 2SA1037K VIDEO AMP
R144 470 :CHIP
L142 10μH :EL0606
C143 100p CH:CHIP
Q142 2SC2412K VIDEO 1 BUFFER
Q141 2SC2412K VIDEO 1 EQ
R145 470 :CHIP
R146 560 :CHIP
C141 82p CH:CHIP
R142 1k :CHIP
R149 1k :CHIP
R147 100 :CHIP
IC4 NJM2233BM VIDEO SW
GND VIDEO Vcc NC
V1 SW1 V2 NC
C145 47 16V
I, DK, L
BG
R136 470 :CHIP
L132 39μH
C133 68p CH:CHIP
C134 33p CH:CHIP
Q131 2SC2412K VIDEO 2 EQ
R134 1k :CHIP
Q132 2SC2412K VIDEO 2 BUFFER
R137 470 :CHIP
C132 15p CH:CHIP
R138 1k :CHIP
R135 0 :CHIP
C131 68p CH:CHIP
R148 1k :CHIP
C135 47 16V

MC-Service

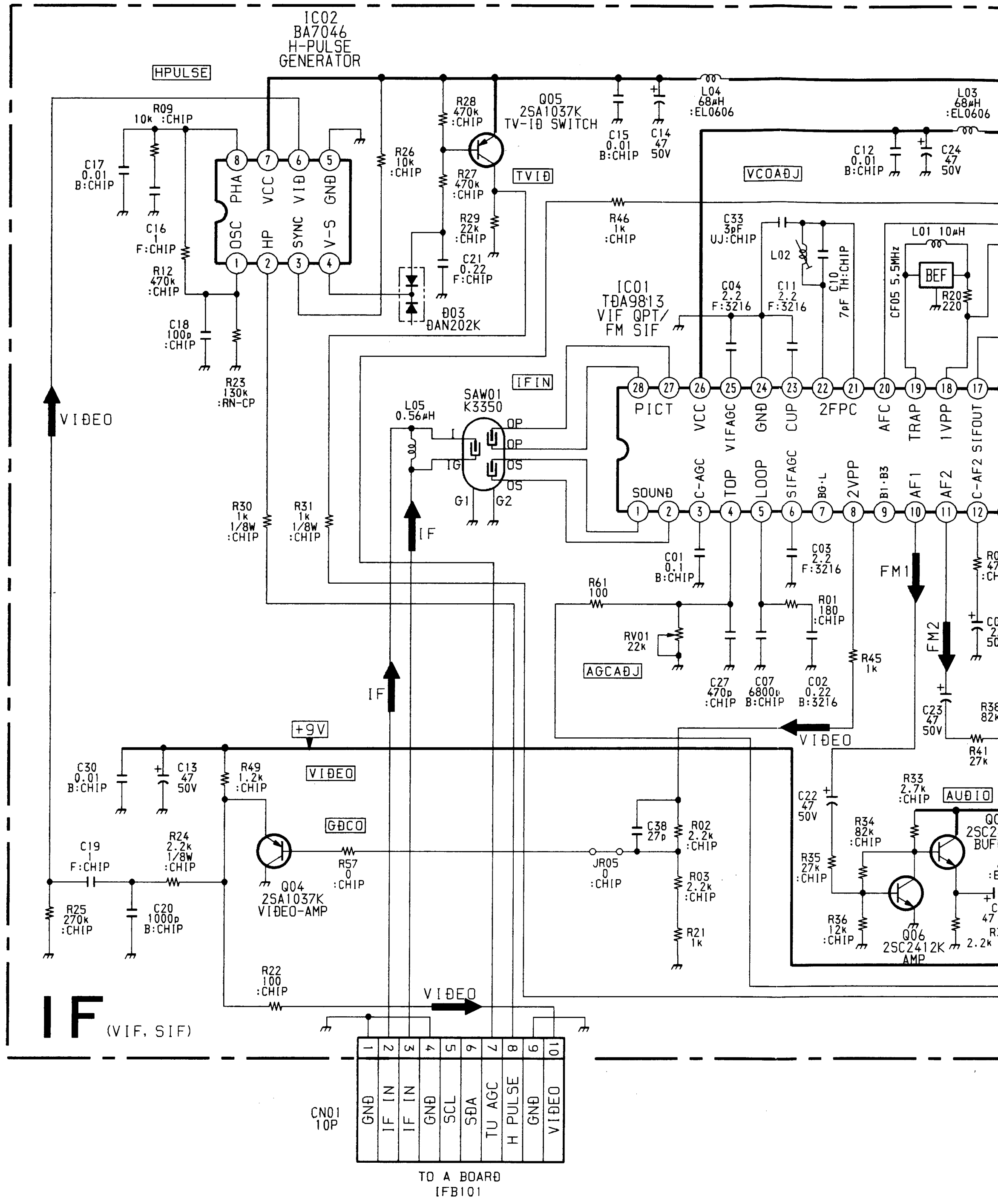
IF [VIF, SIF]

IFH-389WE (KV-29X2A, 29X2D and 29X2E ONLY)


1-654-323-12
(170946612)
SONY
IF
SAW01
IC01
TDA9813T
IC02
IC03
RV01
CN01
CN02

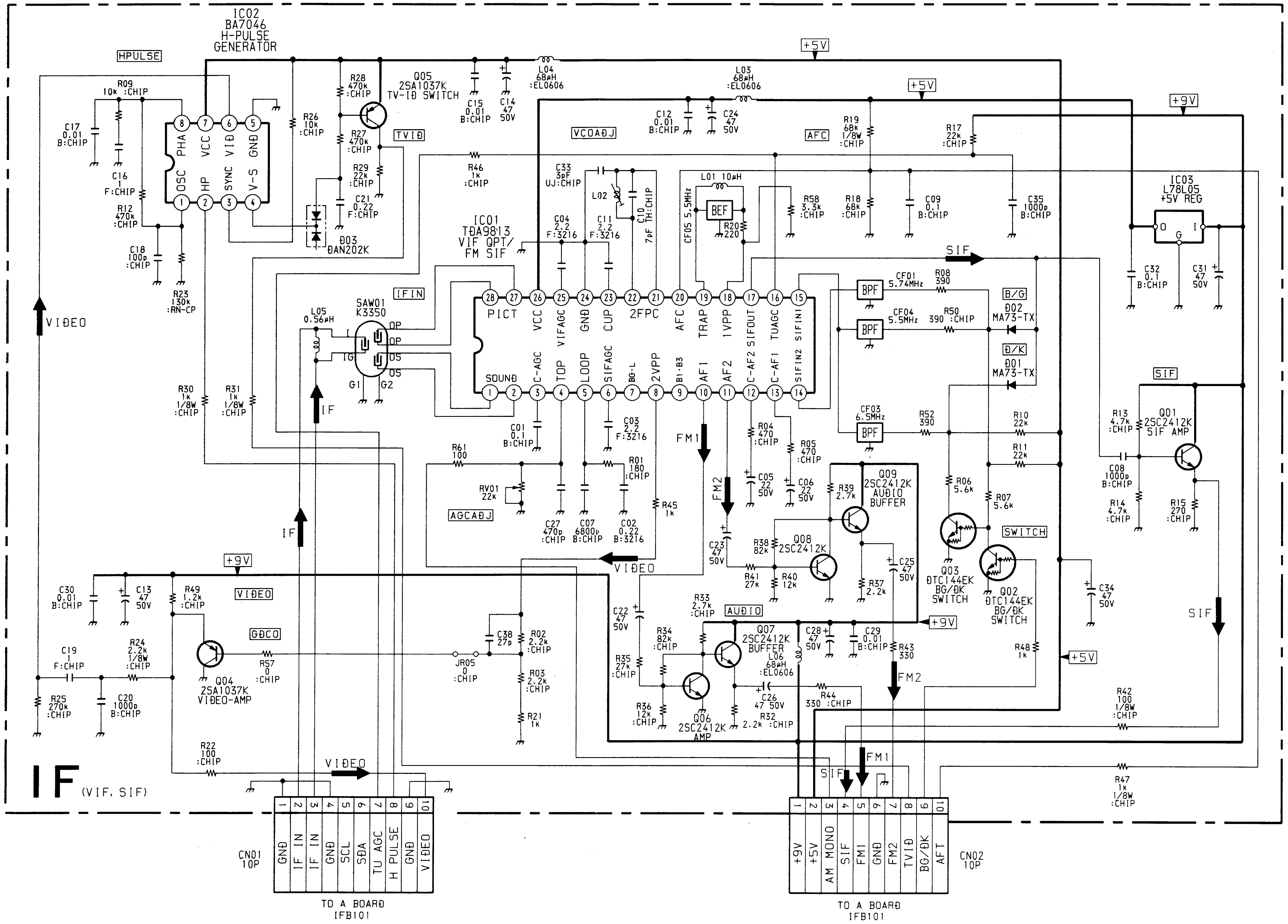
IF Board (KV-29X2A,29X2D and 29X2E ONLY)

B-#IFH389EE/389WE/395GB-29X2


IC02
BA7046
H-PULSE
GENERATOR
HPULSE
Q05
2SA1037K
TV-ID SWITCH
TVID
IC01
TDA9813
VIF QPT/
FM SIF
SAW01
K3350
IFIN
VCOADJ
AGCADJ
D03
DAN202K
Q04
2SA1037K
VIDEO-AMP
Q06
2SC2412K
AMP
AUDIO
VIDEO
IF
+9V
FM1
FM2
IF (VIF, SIF)
CN01
10P
GND
IF IN
IF IN
GND
SCL
SDA
TU AGC
H PULSE
GND
VIDEO
TO A BOARD
(FB101)

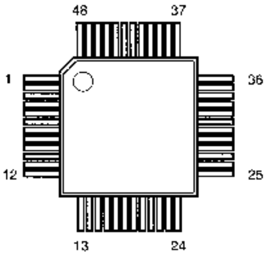
IF Board (KV-29X2A,29X2D and 29X2E ONLY)

B-#IFH389EE/389WE/395GB-29X2

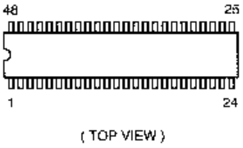

IC02
BA7046
H-PULSE
GENERATOR
HPULSE
R09 10k :CHIP
C17 0.01 B:CHIP
C16 1 F:CHIP
R12 470k :CHIP
C18 100p :CHIP
R23 130k :RN-CP
PHA VCC VID GND
OSC HP SYNC V-S
R26 10k :CHIP
R28 470k :CHIP
Q05 2SA1037K TV-ID SWITCH
R27 470k :CHIP
R29 22k :CHIP
C21 0.22 F:CHIP
TVID
D03 DAN202K
C15 0.01 B:CHIP
C14 47 50V
L04 68μH :EL0606
+5V
L03 68μH :EL0606
C12 0.01 B:CHIP
C24 47 50V
VCOADJ
AFC
R19 68k 1/8W :CHIP
R17 22k :CHIP
+9V
R46 1k :CHIP
C33 3pF UJ:CHIP
L02
C10 7pF TH:CHIP
L01 10μH
CF05 5.5MHz
BEF
R20 220
R58 3.3k :CHIP
R18 68k :CHIP
C09 0.1 B:CHIP
C35 1000p B:CHIP
IC03 L78L05 +5V REG
C04 2.2 F:3216
C11 2.2 F:3216
IC01 TDA9813 VIF QPT/ FM SIF
SIF
CF01 5.74MHz
R08 390
B/G
D02 MA73-TX
CF04 5.5MHz
R50 390 :CHIP
D/K
D01 MA73-TX
BPF
C32 0.1 B:CHIP
C31 47 50V
IFIN
L05 0.56μH
SAW01 K3350
OP
OS
IG
G1 G2
PICT VCC VIFAGC GND CUP 2FPC AFC TRAP 1VPP SIFOUT TUAGC SIFIN1
SOUND C-AGC TOP LOOP SIFAGC BG-L 2VPP B1-B3 AF1 AF2 C-AF2 C-AF1 SIFIN2
VIDEO
R30 1k 1/8W :CHIP
R31 1k 1/8W :CHIP
IF
C01 0.1 B:CHIP
C03 2.2 F:3216
FM1
R04 470 :CHIP
R05 470 :CHIP
CF03 6.5MHz
R52 390
R10 22k
R11 22k
R13 4.7k :CHIP
Q01 2SC2412K SIF AMP
C08 1000p B:CHIP
R14 4.7k :CHIP
R15 270 :CHIP
R61 100
RV01 22k
AGCADJ
R01 180 :CHIP
R45 1k
FM2
C05 22 50V
C06 22 50V
R39 2.7k
Q09 2SC2412K AUDIO BUFFER
R06 5.6k
R07 5.6k
SWITCH
C27 470p :CHIP
C07 6800p B:CHIP
C02 0.22 B:3216
C23 47 50V
R38 82k
Q08 2SC2412K
R41 27k
R40 12k
R37 2.2k
C25 47 50V
Q03 DTC144EK BG/DK SWITCH
Q02 DTC144EK BG/DK SWITCH
C34 47 50V
C30 0.01 B:CHIP
C13 47 50V
R49 1.2k :CHIP
VIDEO
GDCO
C22 47 50V
R33 2.7k :CHIP
AUDIO
C19 1 F:CHIP
R24 2.2k 1/8W :CHIP
R57 0 :CHIP
Q04 2SA1037K VIDEO-AMP
JR05 0 :CHIP
C38 27p
R02 2.2k :CHIP
R03 2.2k :CHIP
R21 1k
R34 82k :CHIP
Q07 2SC2412K BUFFER
L06 68μH :EL0606
C28 47 50V
C29 0.01 B:CHIP
R43 330
R48 1k
R35 27k :CHIP
R36 12k :CHIP
Q06 2SC2412K AMP
C26 47 50V
R32 2.2k :CHIP
R44 330 :CHIP
R42 100 1/8W :CHIP
R25 270k :CHIP
C20 1000p B:CHIP
R22 100 :CHIP
R47 1k 1/8W :CHIP
IF (VIF, SIF)
1 2 3 4 5 6 7 8 9 10
GND IF IN IF IN GND SCL SDA TU AGC H PULSE GND VIDEO
CN01 10P
TO A BOARD IFB101
+9V +5V AM MONO SIF FM1 GND FM2 TVID BG/DK AFT
CN02 10P
TO A BOARD IFB101

5-4. SEMICONDUCTORS

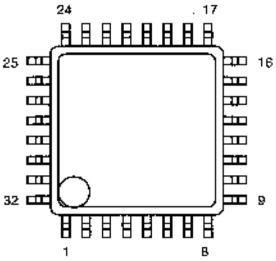
CXA1839Q-T6
CXD1178Q


48
37
1
36
12
25
13
24

CXA1840S
CXA1855S


48
25
1
24
(TOP VIEW)

CXA1860Q-T4
CXD2300Q-T4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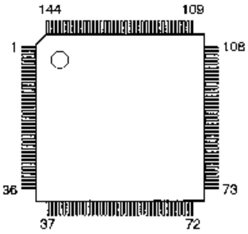
CXD2030R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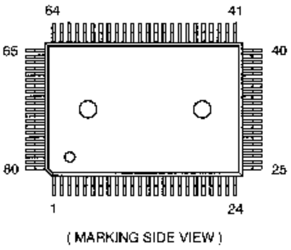
CXD2032Q-TL


64
41
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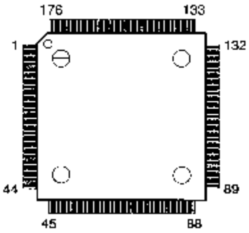
24
(MARKING SIDE VIEW)

CXD2035R


176
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89
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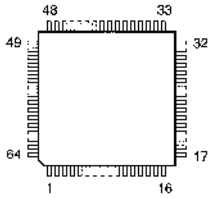
CXD2307R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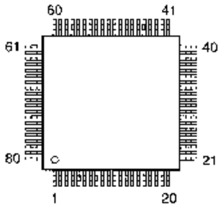
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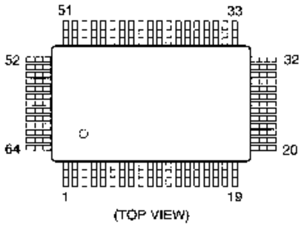
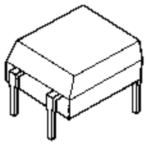

51
33
52
32
64
20
1
19
(TOP VIEW)

DM-48



LM393P
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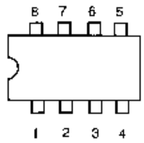
SDA9086-5
ST24C16CB1

TDA2822M
TEA2114
μPC393C



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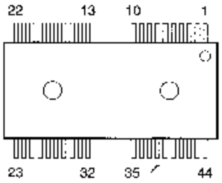
22
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23
32
35
44

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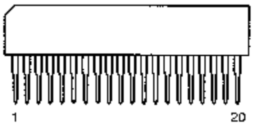

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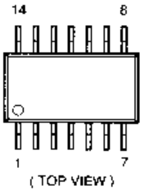
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(TOP VIEW)

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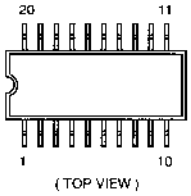
20
11
1
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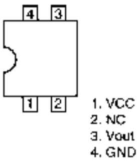
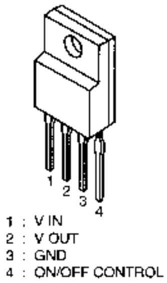
(TOP VIEW)

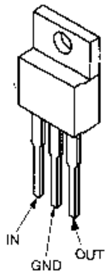
PC123F2
PC123FY2


4
3
1
2
1. VCC
2. NC
3. Vout
4. GND

PQ05RF21
PQ12RF21


1
2
3
4
1 : V IN
2 : V OUT
3 : GND
4 : ON/OFF CONTROL

PQ09RE11
TEA7605



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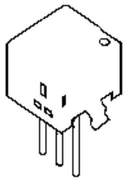

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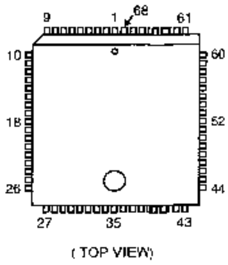
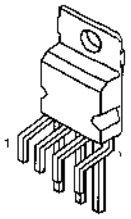
SDA5273P-C26-GEG
SDA9205-2GEG


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

STV9379



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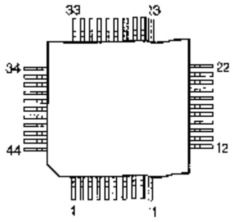
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3
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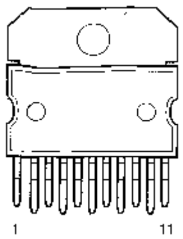
22
44
12
1
1

TDA7265



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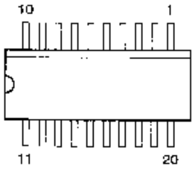

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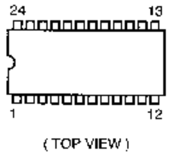
24
13
1
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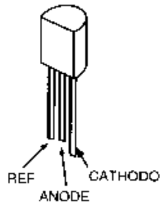
(TOP VIEW)

TL431CLP


REF
CATHODO
ANODE

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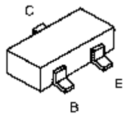
DTC114EK 2SC2412K-QR
DTC124EKA-T146
DTC144EKA-T146
2SA1037K
2SA1162-G



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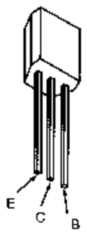
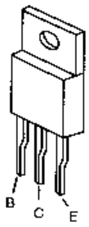
DTC144ESA-TP



IRF614



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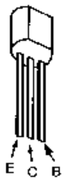
JC501 2SA733-K
2SA1091-O 2SC2500-B
2SA1207 2SC2551-O



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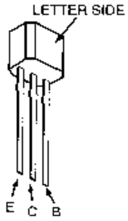
LETTER SIDE
E
C
B

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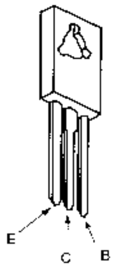
2SC2688-LK
2SC3271-N



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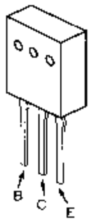

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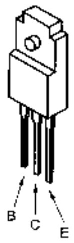

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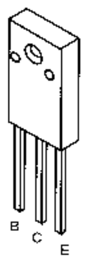

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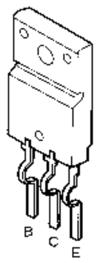
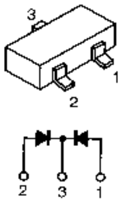
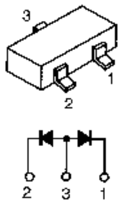


DAN202K



DAP202K



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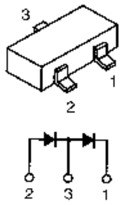

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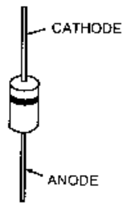
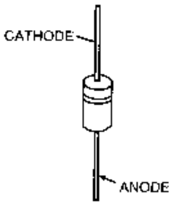
EL1Z R2K-V1
GP08D S2LA20F
RGP02-20EL-6394


CATHODE
ANODE

ERC38-06 RD5.6ESB2
MTZJ-3.6A RD6.8ESB2
MTZJ-5.6B RD9.1ESB2
MTZJ-6.8B
MTZJ-T-77-9.1
MTZJ-T-77-9.1A
MTZJ-9.1B
MTZJ-15B RD15ES-B2
MTZJ-33C 1SS119-25
MTZJ-39 1SS133T-77
RD39ESB2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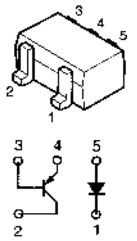
3
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2
1

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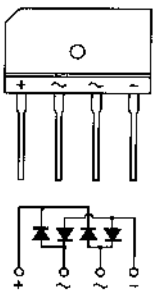
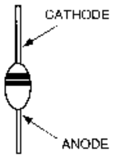
RBA-402L



ERC38-06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ANODE

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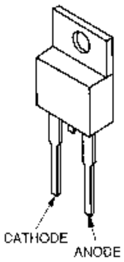
CATHODE
ANODE

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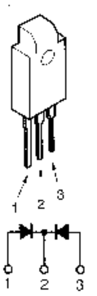
ESAD39M-06C



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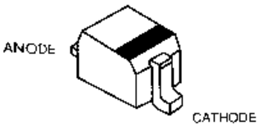
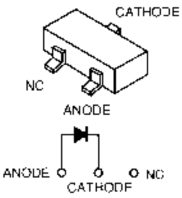
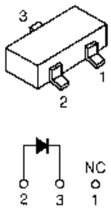

ANODE
CATHODE

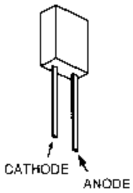
MA3030H (TX)


CATHODE
NC
ANODE
ANODE
CATHODE
NC

MA3039H
MA3051M-TX
MA3091
RD5.1M-B2
RD5.6M-B2



LD201VR


CATHODE
ANODE

SECTION 6

EXPLODED VIEWS

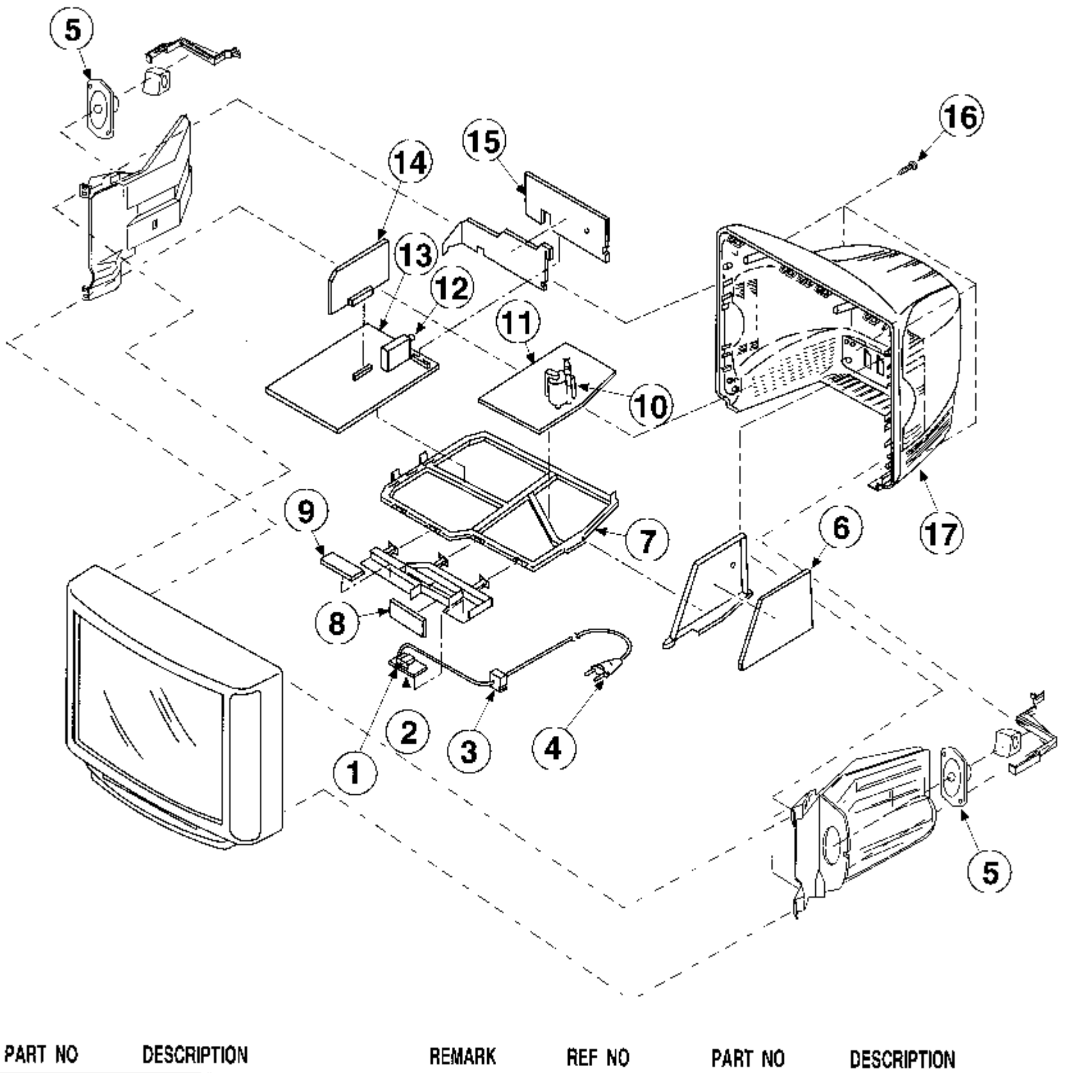
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

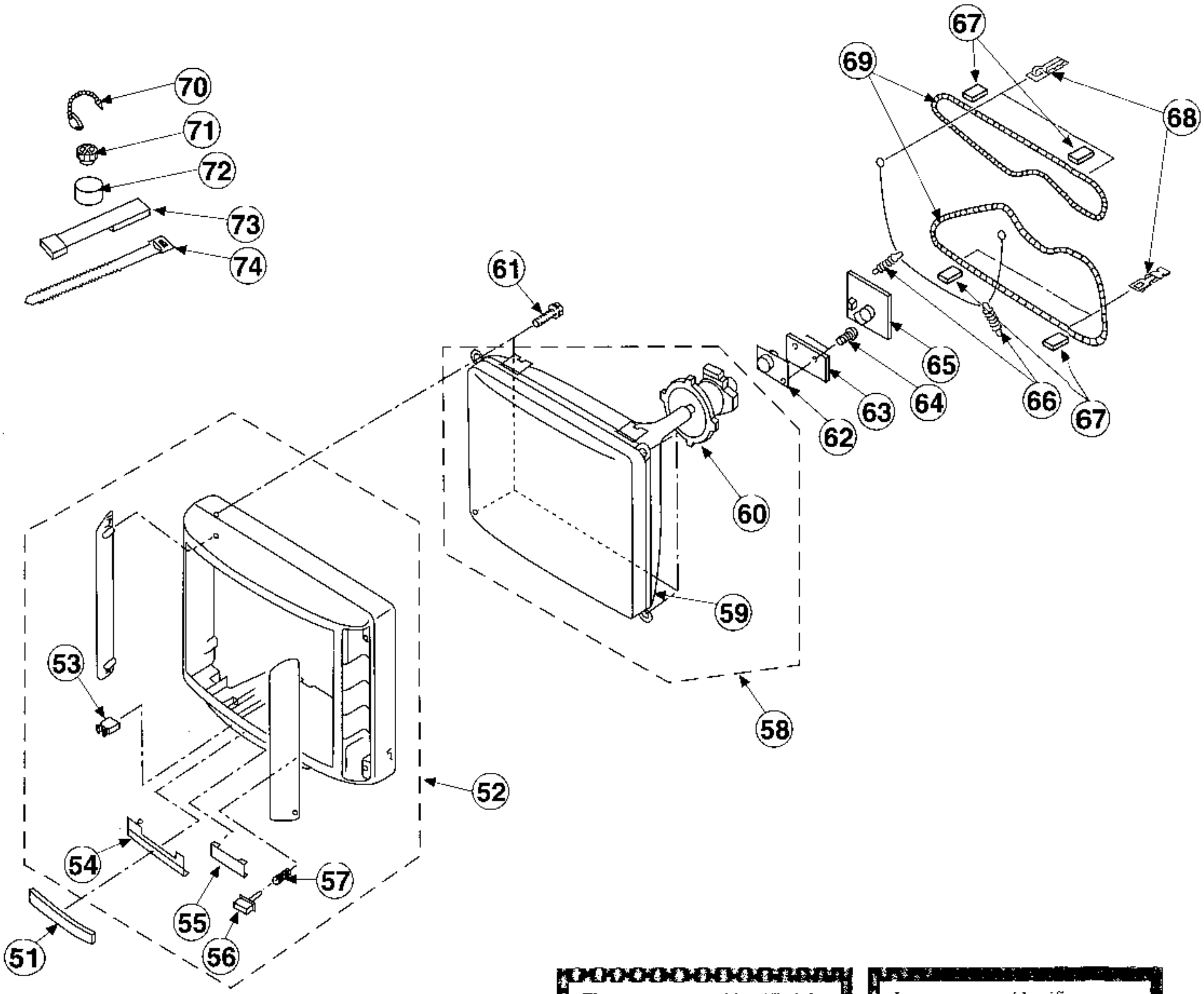
Les composants identifies par une trame et une marque ! sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK
1 !	1-571-433-21	SWITCH, PUSH (AC POWER)	
2	*A-1624-052-A	F1 BOARD, COMPLETE	
3 !	*4-202-531-01	AC CORD LOCK (SC)	
4 !	1-751-680-11	CORD, POWER (WITH NOISE FILTER) 2.5A/250V	
5	1-504-507-11	SPEAKER (5CM)	
6	*A-1636-009-A	G BOARD, COMPLETE	
7	*4-050-452-01	BRACKET, MAIN	
8	*A-1646-099-A	H2 BOARD, COMPLETE	
9	*A-1646-098-A	H1 BOARD, COMPLETE	
10 !	1-453-187-11	TRANSFORMER ASSY, FLYBACK	(NX2661/U2E)
11	*A-1640-236-A	D BOARD, COMPLETE	
12	8-598-361-00	TUNER (BTP-AC402)	
13	*A-1632-462-A	A BOARD, COMPLETE	(KV-29X2A/29X2D)
	*A-1632-461-A	A BOARD, COMPLETE	(KV-29X2B)
	*A-1632-460-A	A BOARD, COMPLETE	(KV-29X2E)
14	*A-1620-073-A	B3 BOARD, COMPLETE	
15	*A-1651-080-A	J BOARD, COMPLETE	
16	4-039-358-01	SCREW (4x16), (+) BV TAPPING	
17	X-4032-754-3	COVER ASSY, REAR	

6-2. PICTURE TUBE



The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK
51	4-202-644-41	ORNAMENT DOOR	
52	X-4031-666-7	BEZNET ASSY	53-57
53	4-392-036-01	CATCHER, PUSH	
54	4-202-642-01	DOOR	
55	4-202-643-01	WINDOW ORNAMENTAL	
56	4-202-637-01	BUTTON POWER	
57	4-329-112-51	SPRING	
58	⚠ 8-738-857-[illegible]	PTD 29GX2-C1	59-60
59	⚠ 8-737-056-05	PICTURE TUBE (SD-269) (M68LCT90X)	
60	⚠ 8-451-460-11	DEFLECTION YOKE (Y29GX02B)	
61	4-036-188-01	SCREW (M), PT	
62	⚠ 8-451-009-31	NECK ASSY, PICTURE TUBE (NA29[illegible]-M3)	
63	*A-1644-064-A	VM BOARD, COMPLETE	
64	4-039-357-01	SCREW (3x8), (+) BV TAPPING	
65	*A-1638-070-A	C BOARD, COMPLETE	
66	4-200-433-01	SPRING, TENSION	
67	*4-203-390-01	CUSHION, DGC	
68	4-202-415-01	CLIP, DGC (29")	
69	⚠ 1-406-607-11	COIL, DEGAUSSING	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM 0	
72	1-452-032-00	MAGNET, DISK; 10MM 0	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH, μH : mH

- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

B3

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1620-073-A	B3 BOARD, COMPLETE ******************	
		< CAPACITOR >	
C01	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C02	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C03	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C04	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C05	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C06	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C07	1-104-664-11	ELECT 47MF	20% 25V
C08	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C09	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C10	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C11	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C12	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C14	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C15	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C16	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C17	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C18	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C19	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C20	1-163-124-00	CERAMIC CHIP 200PF	5% 50V
C21	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C22	1-104-664-11	ELECT 47MF	20% 25V
C23	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C301	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C302	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C303	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C304	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C306	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C307	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C308	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C309	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C310	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C311	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C312	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C313	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C315	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C316	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C317	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C318	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C319	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C320	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C321	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C322	1-104-664-11	ELECT 47MF	20% 25V
C323	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C324	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C325	1-104-664-11	ELECT 47MF	20% 25V
C326	1-126-933-11	ELECT 100MF	20% 16V
C327	1-126-933-11	ELECT 100MF	20% 16V
C328	1-126-933-11	ELECT 100MF	20% 16V
C329	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C330	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C331	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C332	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C333	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C334	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C335	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C336	1-163-096-00	CERAMIC CHIP 13PF	5% 50V
C337	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C338	1-104-664-11	ELECT 47MF	20% 25V
C339	1-126-964-11	ELECT 10MF	20% 50V
C340	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C341	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C342	1-126-964-11	ELECT 10MF	20% 50V
C343	1-126-964-11	ELECT 10MF	20% 50V
C344	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C501	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C502	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C503	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C504	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C505	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C506	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C507	1-104-664-11	ELECT 47MF	20% 25V
C508	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C509	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C510	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C511	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C513	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C514	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C515	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C516	1-162-568-11	CERAMIC CHIP 0.33MF	10% 16V
C517	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C518	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C519	1-124-902-00	ELECT 0.47MF	20% 50V
C520	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C522	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C525	1-163-038-00	CERAMIC CHIP 0.1MF	25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C527	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C528	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C530	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C531	1-104-664-11	ELECT	47MF	20%	25V
C532	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C533	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C534	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C536	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C537	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C538	1-104-664-11	ELECT	47MF	20%	25V
C539	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C540	1-104-664-11	ELECT	47MF	20%	25V
C541	1-104-664-11	ELECT	47MF	20%	25V
C542	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C543	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C544	1-104-664-11	ELECT	47MF	20%	25V
C545	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C546	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C547	1-126-924-11	ELECT	330MF	20%	10V
C548	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C553	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C556	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C557	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C558	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C559	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C560	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C561	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C563	1-104-664-11	ELECT	47MF	20%	25V
C1301	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1302	1-126-964-11	ELECT	10MF	20%	50V
C1303	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1306	1-126-964-11	ELECT	10MF	20%	50V
C1307	1-126-964-11	ELECT	10MF	20%	50V
C1308	1-126-964-11	ELECT	10MF	20%	50V
C1309	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1310	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1311	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1313	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C1314	1-126-964-11	ELECT	10MF	20%	50V
C1315	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1316	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1317	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C1318	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1319	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1320	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1321	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C1322	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C1324	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C1347	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1348	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1349	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C1350	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1351	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1352	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1431	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1432	1-104-664-11	ELECT	47MF	20%	25V
C1443	1-104-664-11	ELECT	47MF	20%	25V
C1446	1-163-038-00	CERAMIC CHIP	0.1MF		25V

REF.NO.	PART NO.	DESCRIPTION		REMARK
		< CONNECTOR >		
CN0302	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		
		< DIODE >		
D01	8-719-914-44	DIODE DAP202K		
D301	8-719-031-68	DIODE HVU359TRF		
D302	8-719-031-68	DIODE HVU359TRF		
D303	8-719-404-46	DIODE MA110		
D1301	8-719-404-46	DIODE MA110		
D1302	8-719-914-43	DIODE DAN202K		
D1304	8-719-914-43	DIODE DAN202K		
D1309	8-719-914-43	DIODE DAN202K		
		< ENCAPSULATED FILTER >		
FL01	1-233-446-11	FILTER, LOW PASS		
FL02	1-233-438-11	FILTER, LOW PASS		
FL03	1-233-438-11	FILTER, LOW PASS		
FL301	1-236-620-11	FILTER, LOW PASS		
FL302	1-236-620-11	FILTER, LOW PASS		
FL352	1-233-436-11	FILTER, LOW PASS		
FL353	1-233-435-11	FILTER, LOW PASS		
FL355	1-233-436-11	FILTER, LOW PASS		
FL1301	1-233-434-11	FILTER, LOW PASS		
FL1302	1-233-434-11	FILTER, LOW PASS		
		< IC >		
IC01	8-752-338-46	IC CXD1178Q		
IC02	8-752-370-87	IC CXD2035R		
IC04	8-752-365-06	IC CXK48324R-1		
IC05	8-752-365-06	IC CXK48324R-1		
IC06	8-759-362-96	IC MB81C1501PFTN-G-D-E		
IC301	8-752-357-86	IC CXD2300Q-T4		
IC302	8-752-369-15	IC CXD2030R		
IC501	8-759-925-76	IC SN74HC08ANS		
IC502	8-752-370-85	IC CXD2032Q-TL		
IC503	8-752-357-62	IC CXD2307R		
IC504	8-759-350-07	IC SDA9205-2GEG		
IC505	8-759-033-43	IC MC74F244M		
IC506	8-759-033-43	IC MC74F244M		
IC507	8-759-032-11	IC MC74HC04AF		
IC1301	8-759-368-89	IC TDA8395T/N2		
IC1302	8-752-070-58	IC CXA1860Q-T4		
IC1305	8-759-032-11	IC MC74HC04AF		
		< COIL >		
L01	1-408-397-00	INDUCTOR	1UH	
L02	1-408-397-00	INDUCTOR	1UH	
L301	1-408-403-00	INDUCTOR	3.3UH	
L302	1-408-403-00	INDUCTOR	3.3UH	
L303	1-408-403-00	INDUCTOR	3.3UH	
L304	1-414-248-11	INDUCTOR	2.2UH	
L305	1-414-248-11	INDUCTOR	2.2UH	
L306	1-408-403-00	INDUCTOR	3.3UH	
L307	1-408-397-00	INDUCTOR	1UH	
L308	1-408-397-00	INDUCTOR	1UH	
L501	1-408-397-00	INDUCTOR	1UH	
L502	1-408-397-00	INDUCTOR	1UH	
L503	1-414-243-11	INDUCTOR	1UH	
L504	1-414-243-11	INDUCTOR	1UH	
L505	1-414-243-11	INDUCTOR	1UH	

B3

REF.NO.	PART NO.	DESCRIPTION	REMARK
L506	1-408-397-00	INDUCTOR 1UH	
L507	1-408-397-00	INDUCTOR 1UH	
L508	1-408-397-00	INDUCTOR 1UH	
L509	1-408-397-00	INDUCTOR 1UH	
L512	1-408-405-00	INDUCTOR 4.7UH	
L513	1-408-405-00	INDUCTOR 4.7UH	
L1406	1-408-403-00	INDUCTOR 3.3UH	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q01	8-729-216-22	TRANSISTOR 2SA1162-G	
Q02	8-729-216-22	TRANSISTOR 2SA1162-G	
Q03	8-729-216-22	TRANSISTOR 2SA1162-G	
Q04	8-729-216-22	TRANSISTOR 2SA1162-G	
Q05	8-729-216-22	TRANSISTOR 2SA1162-G	
Q06	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-216-22	TRANSISTOR 2SA1162-G	
Q305	8-729-216-22	TRANSISTOR 2SA1162-G	
Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q307	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q308	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q351	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q352	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q353	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q354	8-729-216-22	TRANSISTOR 2SA1162-G	
Q356	8-729-216-22	TRANSISTOR 2SA1162-G	
Q358	8-729-216-22	TRANSISTOR 2SA1162-G	
Q359	8-729-900-53	TRANSISTOR DTC114EK	
Q360	8-729-901-04	TRANSISTOR DTA114EK	
Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q504	8-729-216-22	TRANSISTOR 2SA1162-G	
Q505	8-729-119-78	TRANSISTOR 2SC22785-HFE	
Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q508	8-729-216-22	TRANSISTOR 2SA1162-G	
Q509	8-729-216-22	TRANSISTOR 2SA1162-G	
Q510	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1301	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1302	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1305	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1307	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1317	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1319	8-729-216-22	TRANSISTOR 2SA1162-G	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R01	1-216-629-11	METAL CHIP 120 0.50% 1/10W	
R02	1-216-635-11	METAL CHIP 220 0.50% 1/10W	
R03	1-216-635-11	METAL CHIP 220 0.50% 1/10W	
R04	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R05	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R06	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R07	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R08	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R09	1-216-662-11	METAL CHIP 3K 0.50% 1/10W	
R24	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R25	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R26	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	
R27	1-216-047-91	METAL GLAZE 820 5% 1/10W	
R28	1-216-047-91	METAL GLAZE 820 5% 1/10W	
R29	1-216-047-91	METAL GLAZE 820 5% 1/10W	
R36	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R37	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R38	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R53	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R56	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R58	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R59	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R60	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R301	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R302	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R303	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R304	1-208-767-11	METAL CHIP 240 0.50% 1/10W	
R305	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R306	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R307	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R308	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R309	1-216-664-11	METAL CHIP 3.6K 0.50% 1/10W	
R310	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R311	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R312	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R313	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R314	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R315	1-208-767-11	METAL CHIP 240 0.50% 1/10W	
R316	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R317	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R318	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R319	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R320	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R321	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R322	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R323	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R324	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R325	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R326	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R327	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R328	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R329	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R330	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R331	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R332	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R333	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R334	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R335	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R336	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R337	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R338	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R339	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R356	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R357	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R358	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R359	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R360	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R361	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R362	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W	
R363	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R364	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R365	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R368	1-216-660-11	METAL CHIP	2.4K	0.50%	1/10W	
R372	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R373	1-216-660-11	METAL CHIP	2.4K	0.50%	1/10W	
R374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R375	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R376	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R377	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R378	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R501	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R502	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R505	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R506	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R507	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R508	1-216-632-11	METAL CHIP	160	0.50%	1/10W	
R509	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R510	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R511	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R512	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R513	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R516	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R517	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R518	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R519	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R520	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R521	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R522	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R523	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R524	1-216-121-91	METAL GLAZE	1M	5%	1/10W	
R529	1-218-756-11	METAL CHIP	150K	0.50%	1/10W	
R530	1-216-047-91	METAL GLAZE	820	5%	1/10W	
R531	1-216-047-91	METAL GLAZE	820	5%	1/10W	
R532	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R535	1-216-047-91	METAL GLAZE	820	5%	1/10W	
R538	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R539	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R540	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R554	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R555	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W	
R556	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R557	1-216-603-11	METAL CHIP	10	0.50%	1/10W	
R558	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R559	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R561	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R562	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R563	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R564	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R565	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R575	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R577	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R579	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R580	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1302	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1303	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1306	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1307	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1308	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1310	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1311	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1312	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1313	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1314	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R1315	1-208-767-11	METAL CHIP	240	0.50%	1/10W	
R1316	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1317	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1318	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1319	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1320	1-216-648-11	METAL CHIP	750	0.50%	1/10W	
R1321	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1322	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1323	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1324	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1325	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R1326	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R1327	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1328	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1329	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R1332	1-216-626-11	METAL CHIP	91	0.50%	1/10W	
R1366	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R1367	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1368	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1369	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1370	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1371	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1372	1-216-105-91	METAL GLAZE	220K	5%	1/10W	
R1373	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1374	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1375	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1376	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1377	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X301	1-760-457-11	VIBRATOR, CRYSTAL (VCO)
X302	1-527-722-00	OSCILLATOR, CRYSTAL

****

*A-1624-052-A FI BOARD, COMPLETE
****

< CONNECTOR >

REF.NO.		PART NO.	DESCRIPTION
CN0007	⚠	*1-580-844-11	PIN, CONNECTOR (POWER)
CN0622	⚠	*1-695-292-11	PIN, CONNECTOR (POWER)

< FUSE >

REF.NO.		PART NO.	DESCRIPTION
F651	⚠	1-576-232-21	FUSE (H.B.C.) (5A 250V)
	⚠	1-533-230-12	HOLER, FUSE ; F651

F1 **A**

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		< SWITCH >			
S651	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)			
		**			
	*A-1632-462-A	A BOARD, COMPLETE (KV-29X2A/29X2D) *****************			
	*A-1632-461-A	A BOARD, COMPLETE (KV-29X2B) *****************			
	*A-1632-460-A	A BOARD, COMPLETE (KV-29X2E) *****************			
	4-201-023-01	SPACER, INSULATING			
	*4-368-683-21	SPRING, TRANSISTOR			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C001	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C002	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C004	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C007	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C009	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C012	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C014	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C015	1-124-902-00	ELECT	0.47MF	20%	50V
C016	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C017	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C018	1-124-925-11	ELECT	2.2MF	20%	50V
C019	1-126-965-11	ELECT	22MF	20%	50V
C020	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C023	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C024	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C025	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C026	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C027	1-164-346-11	CERAMIC CHIP	1MF		16V
C028	1-126-964-11	ELECT	10MF	20%	50V
C042	1-164-346-11	CERAMIC CHIP	1MF		16V
C072	1-126-934-11	ELECT	220MF	20%	16V
C075	1-164-346-11	CERAMIC CHIP	1MF		16V
C076	1-126-923-11	ELECT	220MF	20%	10V
C081	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C104	1-126-934-11	ELECT	220MF	20%	16V
C105	1-126-965-11	ELECT	22MF	20%	50V
C106	1-126-963-11	ELECT	4.7MF	20%	50V (KV-29X2A/29X2D/29X2E)
	1-126-933-11	ELECT	100MF	20%	16V (KV-29X2B)
C108	1-126-964-11	ELECT	10MF	20%	50V
C109	1-102-951-00	CERAMIC	15PF	5%	50V (KV-29X2B)
C120	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C201	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V
C202	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V
C203	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C204	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C205	1-126-964-11	ELECT	10MF	20%	50V
C206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C207	1-137-613-11	FILM	0.0018MF	2%	100V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C208	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C209	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C210	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C211	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C212	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C213	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C214	1-126-967-11	ELECT	47MF	20%	50V
C215	1-126-967-11	ELECT	47MF	20%	50V
C216	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V
C217	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V
C218	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C219	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C220	1-124-925-11	ELECT	2.2MF	20%	50V
C221	1-124-925-11	ELECT	2.2MF	20%	50V
C226	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C227	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C228	1-124-925-11	ELECT	2.2MF	20%	50V
C229	1-124-925-11	ELECT	2.2MF	20%	50V
C230	1-136-177-00	FILM	1MF	5%	50V
C231	1-136-177-00	FILM	1MF	5%	50V
C232	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C233	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C234	1-126-964-11	ELECT	10MF	20%	50V
C235	1-126-964-11	ELECT	10MF	20%	50V
C236	1-126-933-11	ELECT	100MF	20%	16V
C237	1-104-665-11	ELECT	100MF	20%	25V
C238	1-136-165-00	FILM	0.1MF	5%	50V
C239	1-136-165-00	FILM	0.1MF	5%	50V
C240	1-104-665-11	ELECT	100MF	20%	25V
C242	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C243	1-126-967-11	ELECT	47MF	20%	16V
C248	1-163-185-00	CERAMIC CHIP	150PF	5%	50V
C251	1-136-165-00	FILM	0.1MF	5%	50V
C252	1-136-165-00	FILM	0.1MF	5%	50V
C253	1-126-967-11	ELECT	47MF	20%	16V
C256	1-126-967-11	ELECT	47MF	20%	16V
C258	1-126-934-11	ELECT	220MF	20%	16V
C259	1-107-714-11	ELECT	10MF	20%	16V
C266	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C267	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C268	1-136-165-00	FILM	0.1MF	5%	50V
C269	1-136-165-00	FILM	0.1MF	5%	50V
C270	1-126-953-11	ELECT	2200MF	20%	35V
C271	1-126-953-11	ELECT	2200MF	20%	35V
C272	1-126-953-11	ELECT	2200MF	20%	35V
C273	1-126-953-11	ELECT	2200MF	20%	35V
C274	1-136-165-00	FILM	0.1MF	5%	50V
C275	1-136-165-00	FILM	0.1MF	5%	50V
C280	1-126-967-11	ELECT	47MF	20%	16V
C281	1-104-661-91	ELECT	330MF	20%	16V
C282	1-104-664-11	ELECT	47MF	20%	25V
C283	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C285	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C351	1-126-964-11	ELECT	10MF	20%	50V
C352	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C355	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C356	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C358	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C359	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

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REF.NO.	PART NO.	DESCRIPTION		REMARK	
C360	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C361	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C362	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C364	1-126-964-11	ELECT	10MF	20%	50V
C372	1-126-964-11	ELECT	10MF	20%	50V
C373	1-126-964-11	ELECT	10MF	20%	50V
C580	1-126-964-11	ELECT	10MF	20%	50V
C581	1-124-902-00	ELECT	0.47MF	20%	50V
C582	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C585	1-126-967-11	ELECT	47MF	20%	16V
C586	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C587	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C588	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C589	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C590	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C591	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C592	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C593	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C594	1-126-967-11	ELECT	47MF	20%	50V
C681	1-104-664-11	ELECT	47MF	20%	25V
C682	1-126-967-11	ELECT	47MF	20%	16V
C683	1-104-664-11	ELECT	47MF	20%	25V
C684	1-104-664-11	ELECT	47MF	20%	25V
C687	1-126-967-11	ELECT	47MF	20%	16V
C688	1-126-967-11	ELECT	47MF	20%	16V
C689	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C690	1-126-967-11	ELECT	47MF	20%	16V
C691	1-126-967-11	ELECT	47MF	20%	16V
C692	1-126-967-11	ELECT	47MF	20%	16V
C693	1-126-967-11	ELECT	47MF	20%	16V
C1007	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1008	1-126-967-11	ELECT	47MF	20%	16V

< C1101-C1157 FITTED ON >
< KV-29X2B/29X2E >

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C1101	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C1102	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C1103	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1104	1-126-964-11	ELECT	10MF	20%	50V
C1105	1-126-964-11	ELECT	10MF	20%	50V
C1106	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1107	1-126-967-11	ELECT	47MF	20%	16V
C1108	1-126-964-11	ELECT	10MF	20%	50V
C1110	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1111	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C1112	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C1113	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C1114	1-126-967-11	ELECT	47MF	20%	16V
C1115	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1116	1-126-967-11	ELECT	47MF	20%	16V
C1117	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1118	1-126-967-11	ELECT	47MF	20%	16V
C1119	1-126-967-11	ELECT	47MF	20%	16V
C1120	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C1121	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C1122	1-126-967-11	ELECT	47MF	20%	16V
C1123	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1125	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C1126	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C1127	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C1128	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C1129	1-162-568-11	CERAMIC CHIP	0.33MF		25V
C1130	1-124-903-11	ELECT	1MF	20%	50V
C1131	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1132	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1133	1-126-967-11	ELECT	47MF	20%	16V
C1134	1-126-964-11	ELECT	10MF	20%	50V
C1135	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C1136	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1137	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C1139	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1142	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C1143	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1147	1-126-967-11	ELECT	47MF	20%	16V
C1148	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1150	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1151	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1152	1-126-967-11	ELECT	47MF	20%	16V
C1157	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1504	1-126-968-11	ELECT	100MF	20%	50V
C1505	1-137-371-11	FILM	0.015MF	5%	50V
C1506	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1507	1-106-383-00	MYLAR	0.047MF	10%	100V
C1508	1-137-423-11	MYLAR	0.15MF	10%	100V
C1510	1-136-853-11	FILM	0.56MF	5%	200V
C1511	1-126-941-11	ELECT	470MF	20%	25V
C1512	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1513	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1514	1-126-941-11	ELECT	470MF	20%	25V
C1516	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1518	1-126-963-11	ELECT	4.7MF	20%	50V
C1520	1-126-965-11	ELECT	22MF	20%	50V
C1521	1-107-698-11	ELECT	10MF	20%	25V
C1522	1-126-933-11	ELECT	100MF	20%	16V
C1523	1-104-664-11	ELECT	47MF	20%	25V
C1531	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C1532	1-126-964-11	ELECT	10MF	20%	50V
C1533	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C1534	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C1535	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C1537	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1539	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1540	1-126-967-11	ELECT	47MF	20%	50V
C1541	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1542	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1543	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1544	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1545	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C1546	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1547	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C1548	1-163-055-00	CERAMIC CHIP	0.0047MF	10%	50V
C1549	1-163-055-00	CERAMIC CHIP	0.0047MF	10%	50V
C1550	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1551	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1552	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1553	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1554	1-163-038-00	CERAMIC CHIP	0.1MF		25V

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REF.NO.	PART NO.	DESCRIPTION		REMARK
C1555	1-126-967-11	ELECT 47MF	20%	50V
C1556	1-126-968-11	ELECT 100MF	20%	50V
C1558	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C1559	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C1560	1-124-902-00	ELECT 0.47MF	20%	50V
C1561	1-104-760-11	CERAMIC CHIP 0.047MF	10%	50V
C1562	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C1563	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C1564	1-164-336-11	CERAMIC CHIP 0.33MF		25V
C1567	1-124-903-11	ELECT 1MF	20%	50V
C1568	1-164-344-11	CERAMIC CHIP 0.068MF	10%	25V
C1569	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1570	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1571	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1572	1-126-934-11	ELECT 220MF	20%	16V
C1585	1-124-903-11	ELECT 1MF	20%	50V
C1586	1-124-902-00	ELECT 0.47MF	20%	50V
C1587	1-126-967-11	ELECT 47MF	20%	50V
C1588	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1589	1-162-587-11	CERAMIC CHIP 0.039MF	10%	25V
C1590	1-164-346-11	CERAMIC CHIP 1MF		16V
C1593	1-126-965-11	ELECT 22MF	20%	50V
C2001	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2002	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2003	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2004	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2005	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2007	1-126-965-11	ELECT 22MF	20%	50V
C2008	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2010	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2011	1-107-823-11	CERAMIC CHIP 0.47MF	10%	16V
C2012	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C2013	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C2014	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C2016	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2019	1-126-965-11	ELECT 22MF	20%	50V
C2020	1-164-346-11	CERAMIC CHIP 1MF		16V
C2024	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2025	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2027	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2031	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C2032	1-126-933-11	ELECT 100MF	20%	16V
C2701	1-126-964-11	ELECT 10MF	20%	50V
C2702	1-126-967-11	ELECT 47MF	20%	16V
C2706	1-163-003-11	CERAMIC CHIP 330PF	10%	50V

< OSCILLATOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CD001	1-527-992-31	OSCILLATOR, CERAMIC	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0001	*1-564-520-11	PLUG, CONNECTOR 5P	
CN0002	*1-568-878-51	PIN, CONNECTOR 3P	
CN0102	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN0105	1-764-608-11	CONNECTOR, BOARD TO BOARD 8P	
CN0106	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0107	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	
CN0111	*1-568-882-51	PIN, CONNECTOR 7P	
CN0113	*1-568-879-11	PIN, CONNECTOR 4P	
CN0114	*1-564-511-11	PLUG, CONNECTOR 8P	
CN0115	*1-568-881-51	PIN, CONNECTOR 6P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D001	8-719-027-82	DIODE MA3039H-TX	
D003	8-719-914-42	DIODE DA204K	
D004	8-719-914-44	DIODE DAP202K	
D068	8-719-914-44	DIODE DAP202K	
D069	8-719-914-44	DIODE DAP202K	
D071	8-719-109-89	DIODE RD5.6ESB2	
D073	8-719-109-89	DIODE RD5.6ESB2	
D075	8-719-914-43	DIODE DAN202K	
D077	8-719-914-43	DIODE DAN202K	
D078	8-719-109-89	DIODE RD5.6ESB2	
D079	8-719-109-89	DIODE RD5.6ESB2	
D101	8-719-982-27	DIODE MTZJ-33C	
D201	8-719-914-42	DIODE DA204K	
D251	8-719-991-33	DIODE 1SS133T-77	
D252	8-719-991-33	DIODE 1SS133T-77	
D253	8-719-991-33	DIODE 1SS133T-77	
D254	8-719-991-33	DIODE 1SS133T-77	
D255	8-719-914-43	DIODE DAN202K	
D260	8-719-991-33	DIODE 1SS133T-77	
D261	8-719-991-33	DIODE 1SS133T-77	
D262	8-719-991-33	DIODE 1SS133T-77	
D263	8-719-914-43	DIODE DAN202K	
D265	8-719-914-42	DIODE DA204K	
D351	8-719-991-33	DIODE 1SS133T-77	
D581	8-719-914-43	DIODE DAN202K	
D1001	8-719-914-44	DIODE DAP202K	
D1002	8-719-914-43	DIODE DAN202K	
D1003	8-719-914-43	DIODE DAN202K	
D1101	8-719-914-43	DIODE DAN202K (KV-29X2B/29X2E)	
D1102	8-719-820-71	DIODE 1SV214 (KV-29X2B/29X2E)	
D1503	8-719-908-03	DIODE GP08D	
D1504	8-719-110-41	DIODE RD15ES-B2	
D1505	8-719-914-43	DIODE DAN202K	
D1510	8-719-914-42	DIODE DA204K	
D1511	8-719-982-03	DIODE MTZJ-3.6A	
D1530	8-719-914-43	DIODE DAN202K	
D1533	8-719-400-75	DIODE MA3091	
D1534	8-719-914-43	DIODE DAN202K	
D1536	8-719-105-82	DIODE RD5.1ES-B2	
D1537	8-719-914-43	DIODE DAN202K	
D1539	8-719-914-42	DIODE DA204K	
D1542	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1543	8-719-914-42	DIODE DA204K	
D1544	8-719-914-42	DIODE DA204K	
D1545	8-719-914-42	DIODE DA204K	
D1546	8-719-109-97	DIODE RD6.8ES-B2	
D2001	8-719-036-58	DIODE MA3030-H(TX)	
D2004	8-719-914-43	DIODE DAN202K	
D2701	8-719-914-44	DIODE DAP202K	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC001	8-759-351-92	IC SDA30C164-GEG	
IC002	8-759-353-72	IC TMS27PC020-15FM	
IC072	8-759-184-27	IC ST24C16CB1	
IC201	8-759-348-87	IC TDA6812-2MGEG	
IC202	8-759-502-21	IC TDA2822M	
IC251	8-759-190-89	IC TDA7265	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC351	8-759-183-36	IC TDA8443B	
IC572	8-752-070-54	IC CXA1839Q-T6	
IC681	8-759-518-68	IC PQ12RF21	
	4-202-373-01	SPRING, IC ;IC681	
IC683	8-759-908-15	IC TL431CLP	
IC684	8-759-195-63	IC PQ09RE11	
IC685	8-759-510-52	IC TEA7605	
IC686	8-759-513-71	IC PQ05RF21	
	4-202-373-01	SPRING, IC ;IC686	
IC1001	8-752-873-28	IC CXP85112B-646Q-TL	
IC1101	8-759-251-58	IC SAA7283GP	(KV-29X2B/29X2E)
IC1501	8-759-192-71	IC STV9379	
	4-202-373-01	SPRING, IC ;IC1501	
IC1531	8-752-068-39	IC CXA1840S	
IC2001	8-759-248-91	IC SDA9086-5	
IC2002	8-759-337-48	IC SDA5273P-C26-GEG	
IC2003	8-759-188-60	IC MB81C4256A-70PSZG	
IC2701	8-759-603-37	IC M5216P	
		< IF BLOCK >	
IFB101	1-473-191-11	IF BLOCK	(KV-29X2A/29X2D/29X2E)
	1-467-573-13	IF BLOCK	(KV-29X2B)
		< COIL >	
L001	1-408-421-00	INDUCTOR 100UH	
L101	1-408-607-31	INDUCTOR 22UH	
L201	1-410-067-21	INDUCTOR 4.7MMH	
L1002	1-408-397-00	INDUCTOR 1UH	
L1101	1-412-004-31	INDUCTOR CHIP 6.8UH	(KV-29X2B/29X2E)
L1102	1-408-419-00	INDUCTOR 68UH	(KV-29X2B/29X2E)
L1103	1-408-419-00	INDUCTOR 68UH	(KV-29X2B/29X2E)
L1501	1-412-524-11	INDUCTOR 8.2UH	
L1531	1-412-537-31	INDUCTOR 100UH	
L2001	1-410-674-31	INDUCTOR 82UH	
L2002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		< IC LINK >	
PS681 ⚠	1-532-637-91	LINK, IC (ICP-N25) 1A	
		< TRANSISTOR >	
Q002	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q006	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q007	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q009	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q010	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q011	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q102	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q103	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q106	8-729-821-00	TRANSISTOR 2SA1207	
Q107	8-729-255-12	TRANSISTOR 2SC2551-O	
Q203	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q252	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q253	8-729-216-22	TRANSISTOR 2SA1162-G	
Q254	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q255	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q256	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q257	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q258	8-729-920-74	TRANSISTOR 2SC2412K-QR	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q281	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q282	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q351	8-729-216-22	TRANSISTOR 2SA1162-G	
Q352	8-729-216-22	TRANSISTOR 2SA1162-G	
Q571	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q581	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q681	8-729-032-65	TRANSISTOR 2SD2396H	
Q1105	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-29X2B/29X2E)
Q1106	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-29X2B/29X2E)
Q1107	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-29X2B/29X2E)
Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-29X2B/29X2E)
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1505	8-729-931-45	TRANSISTOR IRF610	
Q1506	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1508	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q1510	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1511	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q1512	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q1531	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1532	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1533	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1544	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1545	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1547	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1548	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1549	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1550	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2001	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2004	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q2005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2006	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q2008	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q2701	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		< RESISTOR >	
JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR002	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR003	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR102	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR103	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-29X2A/29X2D)
JR202	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-29X2A/29X2D)
JR203	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR204	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR279	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR280	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR361	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR362	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR363	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1013	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1501	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR2002	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R001	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R002	1-216-025-00	METAL GLAZE 100 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R003	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R006	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R007	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R008	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R009	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R010	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R012	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R013	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R014	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R016	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R017	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R018	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R020	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R021	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R022	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R025	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R028	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R029	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R030	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R031	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R032	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R033	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R034	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R035	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R036	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R037	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R038	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R047	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R048	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R049	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R050	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R051	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R052	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R054	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R062	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R067	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R068	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R069	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R070	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R071	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R072	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R073	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R074	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R075	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R076	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R077	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R078	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R083	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R085	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R102	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R105	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R108	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R109	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R110	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R111	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R113	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R114	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W	
R115	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R116	1-215-901-00	METAL OXIDE 33K 5% 2W	F
R121	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R127	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R201	1-216-661-11	METAL CHIP 2.7K 0.50% 1/10W	
R202	1-216-662-11	METAL CHIP 3K 0.50% 1/10W	
R203	1-216-661-11	METAL CHIP 2.7K 0.50% 1/10W	
R204	1-216-662-11	METAL CHIP 3K 0.50% 1/10W	
R205	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R206	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R207	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R208	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R209	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R210	1-247-734-11	CARBON 39 5% 1/2W	
R211	1-247-734-11	CARBON 39 5% 1/2W	
R212	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R213	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R214	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R218	1-249-389-11	CARBON 4.7 5% 1/4W	F
R219	1-249-389-11	CARBON 4.7 5% 1/4W	F
R221	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R222	1-249-389-11	CARBON 4.7 5% 1/4W	F
R241	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R245	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R246	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R247	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R248	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R249	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R250	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R251	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R253	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R257	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R258	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R259	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R260	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R261	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R262	1-216-357-00	METAL OXIDE 4.7 5% 1W	F
R263	1-216-357-00	METAL OXIDE 4.7 5% 1W	F
R264	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R265	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R266	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R267	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R268	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R269	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R270	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R271	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R272	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R273	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R274	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R275	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R276	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R277	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R278	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R279	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R291	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R292	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R293	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R294	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R295	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R296	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R297	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R298	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R299	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R351	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R352	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R353	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R354	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R355	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R356	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R357	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R358	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R364	1-216-295-00	METAL GLAZE	0	5%	1/10W	(KV-29X2A/29X2D/29X2E)
R365	1-216-295-00	METAL GLAZE	0	5%	1/10W	(KV-29X2A/29X2D/29X2E)
R366	1-216-295-00	METAL GLAZE	0	5%	1/10W	(KV-29X2A/29X2D/29X2E)
R367	1-216-295-00	METAL GLAZE	0	5%	1/10W	(KV-29X2B)
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R371	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R372	1-216-043-91	METAL GLAZE	560	5%	1/10W	
R373	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R375	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R376	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R377	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R378	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R379	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R380	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R384	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R385	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R386	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R575	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R576	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R578	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R579	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R580	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R581	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R582	1-216-047-91	METAL GLAZE	820	5%	1/10W	
R583	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R584	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R587	1-216-017-91	METAL GLAZE	47	5%	1/10W	
R588	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R681	1-216-471-11	METAL OXIDE	27	5%	3W	F
R682	1-249-407-11	CARBON	150	5%	1/4W	
R683	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R684	1-249-419-11	CARBON	1.5K	5%	1/4W	
R685	1-247-807-31	CARBON	100	5%	1/4W	
R1001	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1005	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1007	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1008	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1009	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1019	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1020	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1022	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1023	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1024	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1025	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1026	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1027	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1028	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
	< R1101 - R1151 FITTED ON > < KV-29X2B/29X2E >					
R1101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1103	1-216-134-00	METAL GLAZE	2.2	5%	1/8W	
R1104	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1105	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1107	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1108	1-216-121-91	METAL GLAZE	1M	5%	1/10W	
R1109	1-216-121-91	METAL GLAZE	1M	5%	1/10W	
R1110	1-216-150-91	METAL GLAZE	10	5%	1/8W	
R1111	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1112	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1113	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R1114	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1115	1-216-121-91	METAL GLAZE	1M	5%	1/10W	
R1116	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1118	1-216-134-00	METAL GLAZE	2.2	5%	1/8W	
R1124	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1125	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1132	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1133	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1145	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1146	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1147	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1148	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1149	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1150	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1501	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1502	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1503	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1504	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1505	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1506	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1512	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1513	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1515	1-215-455-00	METAL	27K	1%	1/4W	
R1516	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1517	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R1519	1-216-475-11	METAL OXIDE	120	5%	3W	F
R1520	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1521	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1522	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1523	1-216-105-91	METAL GLAZE	220K	5%	1/10W	
R1524	1-216-105-91	METAL GLAZE	220K	5%	1/10W	
R1526	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1527	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1529	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1531	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1532	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R1534	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1539	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R1540	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1541	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1542	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R1543	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1544	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1545	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R1546	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1547	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1548	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1549	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1553	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1554	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1555	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1556	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1557	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1558	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1559	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1562	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1563	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1564	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1565	1-216-282-00	METAL GLAZE	3.3M	5%	1/8W	
R1568	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1569	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1570	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1571	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1572	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1573	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1574	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1575	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1576	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1577	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1578	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1579	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1580	1-215-867-00	METAL OXIDE	470	5%	1W	F
R1581	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1582	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1583	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1584	1-208-822-11	METAL CHIP	47K	0.50%	1/10W	
R1585	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1586	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	
R1587	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1588	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1589	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1591	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1592	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1593	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1594	1-216-286-00	METAL GLAZE	4.7M	5%	1/8W	
R1595	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1597	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1601	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1602	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R1604	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R1605	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1607	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1608	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R1609	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1610	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1611	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1612	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1613	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1615	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1616	1-216-105-91	METAL GLAZE	220K	5%	1/10W	
R1617	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1618	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1619	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2002	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2003	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2005	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2007	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2008	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2009	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2010	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2011	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2012	1-216-017-91	METAL GLAZE	47	5%	1/10W	
R2013	1-216-017-91	METAL GLAZE	47	5%	1/10W	
R2014	1-216-017-91	METAL GLAZE	47	5%	1/10W	
R2022	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2023	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2024	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2025	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R2026	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2029	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2030	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2031	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2032	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2033	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2034	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2035	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2036	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2037	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2038	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2039	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R2040	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2701	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2702	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2703	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2704	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2705	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2706	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2707	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2708	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2713	1-216-295-00	METAL GLAZE	0	5%	1/10W	

< THERMISTOR >

TH1501	1-800-193-00	THERMISTOR

< TUNER >

TU101	8-598-361-00	TUNER (BTP-AC402)

< CRYSTAL >

X1001	1-577-082-11	VIBRATOR, CERAMIC
X1101	1-579-689-21	VIBRATOR, CRYSTAL (KV-29X2B/29X2E)
X1531	1-760-895-21	VIBRATOR, CERAMIC
X2001	1-760-551-21	VIBRATOR, CERAMIC

IF (KV-29X2A/29X2D/29X2E)

REF.NO.	PART NO.	DESCRIPTION		REMARK
	1-473-191-11	IF BLOCK (IFH-389WE) ********************		(KV-29X2A/29X2D/ 29X2E)
		< CAPACITOR >		
C01	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C02	1-164-299-11	CERAMIC CHIP 0.22MF	10%	25V
C03	1-164-337-11	CERAMIC CHIP 2.2MF		16V
C04	1-164-337-11	CERAMIC CHIP 2.2MF		16V
C05	1-126-965-11	ELECT 22MF	20%	50V
C06	1-126-965-11	ELECT 22MF	20%	50V
C07	1-163-019-00	CERAMIC CHIP 0.0068MF	10%	50V
C08	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C09	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C10	1-163-090-00	CERAMIC CHIP 7PF	0.25PF	50V
C11	1-164-337-11	CERAMIC CHIP 2.2MF		16V
C12	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C13	1-124-910-11	ELECT 47MF	20%	50V
C14	1-124-910-11	ELECT 47MF	20%	50V
C15	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C16	1-164-346-11	CERAMIC CHIP 1MF		16V
C17	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C18	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C19	1-164-346-11	CERAMIC CHIP 1MF		16V
C20	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C21	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C22	1-124-910-11	ELECT 47MF	20%	50V
C23	1-124-910-11	ELECT 47MF	20%	50V
C24	1-124-910-11	ELECT 47MF	20%	50V
C25	1-124-910-11	ELECT 47MF	20%	50V
C26	1-124-910-11	ELECT 47MF	20%	50V
C27	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C28	1-124-910-11	ELECT 47MF	20%	50V
C29	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C30	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C31	1-124-910-11	ELECT 47MF	20%	50V
C32	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C33	1-163-086-00	CERAMIC CHIP 3PF	0.25PF	50V
C34	1-124-910-11	ELECT 47MF	20%	50V
C35	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C38	1-163-237-11	CERAMIC CHIP 27PF	5%	50V
		< FILTER >		
CF01	1-760-416-21	FILTER, CERAMIC		
CF03	1-760-450-11	FILTER, CERAMIC		
CF04	1-760-106-11	TRAP, CERAMIC		
CF05	1-404-134-00	TRAP, CERAMIC (5.5MHZ)		
SAW01	1-760-538-11	FILTER, SURFACE WAVE		
		< CONNECTOR >		
CN01	1-750-919-11	PIN, CONNECTOR (PC BOARD) 10P		
CN02	1-750-919-11	PIN, CONNECTOR (PC BOARD) 10P		
		< DIODE >		
D01	8-719-421-57	DIODE MA73-TX		
D02	8-719-421-57	DIODE MA73-TX		
D03	8-719-914-43	DIODE DAN202K		
		< IC >		
IC01	8-759-289-18	IC TDA9813T-T		

REF.NO.	PART NO.	DESCRIPTION		REMARK
IC02	8-759-514-54	IC BA7046		
IC03	8-759-991-41	IC L78L05ACZ-AP		
		< COIL >		
L01	1-408-409-00	INDUCTOR 10UH		
L02	1-403-686-11	COIL		
L03	1-408-419-00	INDUCTOR 68UH		
L04	1-408-419-00	INDUCTOR 68UH		
L05	1-410-790-41	INDUCTOR 0.56UH		
L06	1-408-419-00	INDUCTOR 68UH		
		< TRANSISTOR >		
Q01	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q02	8-729-901-01	TRANSISTOR DTC144EK		
Q03	8-729-901-01	TRANSISTOR DTC144EK		
Q04	8-729-216-22	TRANSISTOR 2SA1162-G		
Q05	8-729-216-22	TRANSISTOR 2SA1162-G		
Q06	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q07	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q08	8-729-920-74	TRANSISTOR 2SC2412K-QR		
Q09	8-729-920-74	TRANSISTOR 2SC2412K-QR		
		< RESISTOR >		
JR01	1-216-296-91	METAL GLAZE 0	5%	1/8W
JR02	1-216-296-91	METAL GLAZE 0	5%	1/8W
JR03	1-216-296-91	METAL GLAZE 0	5%	1/8W
JR04	1-216-296-91	METAL GLAZE 0	5%	1/8W
JR05	1-216-295-91	METAL GLAZE 0	5%	1/10W
JR06	1-216-295-91	METAL GLAZE 0	5%	1/10W
JR10	1-216-296-91	METAL GLAZE 0	5%	1/8W
JR11	1-216-296-91	METAL GLAZE 0	5%	1/8W
R01	1-216-031-00	METAL GLAZE 180	5%	1/10W
R02	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R03	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R04	1-216-041-00	METAL GLAZE 470	5%	1/10W
R05	1-216-041-00	METAL GLAZE 470	5%	1/10W
R06	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R07	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R08	1-216-039-00	METAL GLAZE 390	5%	1/10W
R09	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R10	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R11	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R12	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R13	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R14	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R15	1-216-035-00	METAL GLAZE 270	5%	1/10W
R17	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R18	1-216-093-00	METAL GLAZE 68K	5%	1/10W
R19	1-216-242-91	METAL GLAZE 68K	5%	1/8W
R20	1-216-033-00	METAL GLAZE 180	5%	1/10W
R21	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R22	1-216-025-91	METAL GLAZE 100	5%	1/10W
R23	1-218-755-11	METAL CHIP 130K	0.50%	1/10W
R24	1-216-206-00	METAL GLAZE 2.2K	5%	1/8W
R25	1-216-107-00	METAL GLAZE 270K	5%	1/10W
R26	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R27	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R28	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R29	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R30	1-216-198-91	METAL GLAZE 1K	5%	1/8W

IF (KV-29X2A/29X2D/29X2E)

IF (KV-29X2B)

REF.NO.	PART NO.	DESCRIPTION	REMARK
R31	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
R32	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R33	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R34	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R35	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R36	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R37	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R38	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R39	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R40	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R41	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R42	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R43	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R44	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R45	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
R46	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R47	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
R48	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R49	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R50	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R52	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R57	1-216-295-91	METAL GLAZE 0 5% 1/10W	
R58	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R61	1-216-025-91	METAL GLAZE 100 5% 1/10W	

< VARIABLE RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV01	1-241-786-11	RES, ADJ, CARBON 22K	

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1-467-573-13 IF BLOCK (IFH-389FX) (KV-29X2B)
****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C101	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C102	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C104	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C111	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C112	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C113	1-164-489-11	CERAMIC CHIP 0.22MF 10% 16V	
C114	1-124-925-11	ELECT 2.2MF 20% 50V	
C115	1-124-916-11	ELECT 22MF 20% 50V	
C116	1-124-916-11	ELECT 22MF 20% 50V	
C117	1-163-090-00	CERAMIC CHIP 7PF 0.25PF 50V	
C120	1-124-925-11	ELECT 2.2MF 20% 50V	
C121	1-124-925-11	ELECT 2.2MF 20% 50V	
C122	1-164-489-11	CERAMIC CHIP 0.22MF 10% 16V	
C123	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C126	1-163-085-00	CERAMIC CHIP 2PF 0.25PF 50V	
C128	1-164-489-11	CERAMIC CHIP 0.22MF 10% 16V	
C131	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C132	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C133	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C134	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C135	1-124-477-11	ELECT 47MF 20% 16V	
C141	1-163-249-11	CERAMIC CHIP 82PF 5% 50V	
C143	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C145	1-124-477-11	ELECT 47MF 20% 16V	
C151	1-124-477-11	ELECT 47MF 20% 16V	
C152	1-124-477-11	ELECT 47MF 20% 16V	
C161	1-124-477-11	ELECT 47MF 20% 16V	
C162	1-124-477-11	ELECT 47MF 20% 16V	
C173	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C174	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C175	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C177	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C191	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C201	1-164-346-11	CERAMIC CHIP 1MF 16V	
C202	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C203	1-124-477-11	ELECT 47MF 20% 16V	
C204	1-164-346-11	CERAMIC CHIP 1MF 16V	
C205	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C206	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C207	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C208	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C302	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C502	1-124-477-11	ELECT 47MF 20% 16V	
C503	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C901	1-124-477-11	ELECT 47MF 20% 16V	
C902	1-163-059-91	CERAMIC CHIP 0.01MF 10% 50V	

< FILTER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CF171	1-567-100-00	FILTER, CERAMIC	
CF172	1-567-101-11	FILTER, CERAMIC	
CF173	1-760-107-21	FILTER, CERAMIC	
CF174	1-760-106-21	FILTER, CERAMIC	
SWF101	1-579-273-11	FILTER, SURFACE WAVE	
SWF103	1-760-244-21	FILTER, SURFACE WAVE	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1	1-750-919-11	PIN, CONNECTOR (PC BOARD) 10P	
CN2	1-750-919-11	PIN, CONNECTOR (PC BOARD) 10P	

< TRIMMER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CT101	1-760-154-21	TRAP, CERAMIC	
CT131	1-409-430-11	TRAP, CERAMIC	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D101	8-719-914-43	DIODE DAN202K	
D171	8-719-914-43	DIODE DAN202K	
D201	8-719-914-43	DIODE DAN202K	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-193-13	IC TDA9815	
IC2	8-759-514-54	IC BA7046	
IC3	8-752-069-79	IC CXA1875M	
IC4	8-759-710-86	IC NJM2233BM	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-408-419-00	INDUCTOR 68UH	
L102	1-410-985-11	INDUCTOR CHIP 0.22UH	
L131	1-408-407-00	INDUCTOR 6.8UH	
L132	1-410-426-21	INDUCTOR 39UH	
L142	1-408-409-00	INDUCTOR 10UH	
L171	1-408-609-41	INDUCTOR 33UH	
L201	1-408-419-00	INDUCTOR 68UH	
L501	1-408-411-00	INDUCTOR 15UH	
L901	1-408-411-00	INDUCTOR 15UH	

IF (KV-29X2B)

REF.NO.	PART NO.	DESCRIPTION				REMARK
		< TRANSISTOR >				
Q101	8-729-104-80	TRANSISTOR 2SC3355				
Q102	8-729-901-01	TRANSISTOR DTC144EK				
Q104	8-729-901-01	TRANSISTOR DTC144EK				
Q121	8-729-216-22	TRANSISTOR 2SA1162-G				
Q131	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q132	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q141	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q142	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q151	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q152	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q153	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q154	8-729-901-01	TRANSISTOR DTC144EK				
Q161	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q162	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q171	8-729-216-22	TRANSISTOR 2SA1162-G				
Q174	8-729-901-01	TRANSISTOR DTC144EK				
Q175	8-729-901-01	TRANSISTOR DTC144EK				
Q176	8-729-901-01	TRANSISTOR DTC144EK				
Q181	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q191	8-729-216-22	TRANSISTOR 2SA1162-G				
Q201	8-729-216-22	TRANSISTOR 2SA1162-G				
		< RESISTOR >				
JR101	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR102	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR103	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR104	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR106	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR107	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR109	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR110	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR111	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR112	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR113	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR114	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR115	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR116	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR117	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR118	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR119	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR120	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR121	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR122	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR123	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR124	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR125	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR126	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR127	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR128	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR129	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR130	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR131	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR132	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR133	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR134	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR135	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR136	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR137	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR138	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR140	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR141	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR142	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR143	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR145	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR146	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR150	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR152	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR154	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR160	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR161	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR162	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR166	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR167	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R100	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R102	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R103	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R104	1-216-176-11	METAL GLAZE	120	5%	1/8W	
R105	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R106	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R107	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R109	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R111	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R113	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R114	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R115	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R116	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R117	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R118	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R120	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R131	1-216-198-91	METAL GLAZE	1K	5%	1/8W	
R133	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R135	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R136	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R137	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R138	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R139	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R140	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R142	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R144	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R145	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R146	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R147	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R149	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R151	1-216-226-00	METAL GLAZE	15K	5%	1/8W	
R152	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R153	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R154	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R155	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R156	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R161	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R162	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R163	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R164	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R165	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R166	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R167	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

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IF (KV-29X2B)

REF.NO.	PART NO.	DESCRIPTION			REMARK
R168	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W
R169	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R171	1-216-045-00	METAL GLAZE	680	5%	1/10W
R177	1-216-025-00	METAL GLAZE	100	5%	1/10W
R178	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R179	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R180	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R181	1-216-041-00	METAL GLAZE	470	5%	1/10W
R182	1-216-041-00	METAL GLAZE	470	5%	1/10W
R183	1-216-192-00	METAL GLAZE	560	5%	1/8W
R184	1-216-043-00	METAL GLAZE	560	5%	1/10W
R185	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R191	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R192	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R193	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R194	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R195	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W
R201	1-216-198-91	METAL GLAZE	1K	5%	1/8W
R202	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R203	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R204	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R205	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
R206	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R207	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R208	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R209	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R210	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R211	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R302	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R303	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R306	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R308	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W

< VARIABLE RESISTOR >

RV111	1-241-786-11	RES, ADJ, CARBON 22K
RV112	1-241-765-11	RES, ADJ, CARBON 22K

< TRANSFORMER >

T111	1-403-686-22	COIL

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G

*A-1636-009-A G BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C602	1-165-127-11	CERAMIC	470PF	10%	500V
C603	1-165-127-11	CERAMIC	470PF	10%	500V
C604	1-136-171-00	FILM	0.33MF	5%	50V
C605	1-137-399-11	FILM	0.1MF	5%	50V
C606	1-136-171-00	FILM	0.33MF	5%	50V
C607	1-137-399-11	FILM	0.1MF	5%	50V
C608	1-164-625-11	CERAMIC	680PF	10%	500V
C609	1-129-718-00	FILM	0.022MF	5%	630V
C610	1-126-953-11	ELECT	2200MF	20%	35V
C611	1-126-953-11	ELECT	2200MF	20%	35V
C613	1-128-548-11	ELECT	4700MF	20%	25V
C614	1-128-548-11	ELECT	4700MF	20%	25V
C615	1-110-626-11	ELECT	330MF	20%	160V
C616	1-164-625-11	CERAMIC	680PF	10%	500V
C617	1-136-559-11	MYLAR	0.0047MF	10%	400V
C618	1-104-989-91	FILM	0.0022MF	5%	200V
C619	1-136-165-00	FILM	0.1MF	5%	50V
C620	1-126-967-11	ELECT	47MF	20%	50V
C621	1-126-519-12	FILM	0.47MF	20%	300V
C622	1-136-589-12	FILM	0.33MF	20%	300V
C624	1-143-890-61	ELECT	0.0022MF	20%	250V
C626	1-141-890-61	ELECT	0.0022MF	20%	250V
C627	1-126-940-11	ELECT	330MF	20%	25V
C628	1-126-965-11	ELECT	22MF	20%	50V
C629	1-162-599-12	CERAMIC	0.0047MF		250V
C630	1-162-599-12	CERAMIC	0.0047MF		250V
C631	1-161-964-61	CERAMIC	0.0047MF		250V
C633	1-125-555-11	ELECT	330MF	20%	400V
C635	1-136-165-00	FILM	0.1MF	5%	50V
C636	1-136-165-00	FILM	0.1MF	5%	50V
C637	1-126-964-11	ELECT	10MF	20%	50V
C638	1-126-964-11	ELECT	10MF	20%	50V
C639	1-126-964-11	ELECT	10MF	20%	50V
C642	1-102-580-51	CERAMIC	0.01MF		400V
C645	1-102-002-00	CERAMIC	680PF	10%	500V
C646	1-136-171-00	FILM	0.33MF	5%	50V
C647	1-136-171-00	FILM	0.33MF	5%	50V
C650	1-126-964-11	ELECT	10MF	20%	50V
C651	1-136-171-00	FILM	0.33MF	5%	50V
C652	1-136-171-00	FILM	0.33MF	5%	50V
C653	1-136-169-00	FILM	0.22MF	5%	50V
C654	1-126-934-11	ELECT	220MF	20%	16V
C660	1-101-001-00	CERAMIC	0.001MF		50V

< CONNECTOR >

CN0006	*1-695-915-11	TAB (CONTACT)
CN0008	*1-508-786-11	PIN, CONNECTOR (5MM PITCH) 4P
CN0009	*1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P
CN0701	*1-564-516-11	PLUG, CONNECTOR 13P
CN0722	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P

< DIODE >

D601	8-719-510-53	DIODE D4SB60L
D602	8-719-991-33	DIODE 1SS133T-77
D603	8-719-109-89	DIODE RD5.6ESB2
D605	8-719-047-31	DIODE RBA-402L
D607	8-719-510-12	DIODE D10SC4M
D608	8-719-510-12	DIODE D10SC4M
D609	8-719-047-31	DIODE RBA-402L
D610	8-719-510-64	DIODE S2LA20F
D612	8-719-911-19	DIODE 1SS119-25
D613	8-719-911-19	DIODE 1SS119-25
D614	8-719-911-19	DIODE 1SS119-25
D615	8-719-911-19	DIODE 1SS119-25
D616	8-719-911-19	DIODE 1SS119-25
D617	8-719-911-19	DIODE 1SS119-25
D618	8-719-911-19	DIODE 1SS119-25
D619	8-719-911-19	DIODE 1SS119-25
D620	8-719-911-19	DIODE 1SS119-25
D621	8-719-911-19	DIODE 1SS119-25
D622	8-719-510-64	DIODE S2LA20F

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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
D623	8-719-510-64	DIODE S2LA20F				
D624	8-719-312-39	DIODE R2K-V1				
D625	8-719-911-19	DIODE 1SS119-25				
D626	8-719-911-19	DIODE 1SS119-25				
D627	8-719-911-19	DIODE 1SS119-25				
D628	8-719-911-19	DIODE 1SS119-25				
D630	8-719-991-33	DIODE 1SS133T-77				
D631	8-719-991-33	DIODE 1SS133T-77				
D632	8-719-991-33	DIODE 1SS133T-77				
D633	8-719-991-33	DIODE 1SS133T-77				
D634	8-719-991-33	DIODE 1SS133T-77				
		< FERRITE BEAD >				
FB601	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB602	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB603	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
		< IC >				
IC601	1-810-051-11	POWER MODULE DM-48				
IC602	⚠ 8-749-010-64	PHOTO COUPLER PC123F2				
		< COIL >				
L601	1-412-525-31	INDUCTOR	10UH			
L602	1-412-525-31	INDUCTOR	10UH			
L603	1-412-525-31	INDUCTOR	10UH			
L605	1-412-523-11	INDUCTOR	6.8UH			
L606	1-412-523-11	INDUCTOR	6.8UH			
		< TRANSFORMER >				
LF601	⚠ 1-424-436-11	TRANSFORMER, LINE FILTER				
		< IC LINK >				
PS601	⚠ 1-532-686-91	LINK, IC (ICP-N75) 2.7A				
PS602	⚠ 1-532-686-91	LINK, IC (ICP-N75) 2.7A				
PS604	⚠ 1-532-686-91	LINK, IC (ICP-N75) 2.7A				
PS605	⚠ 1-532-845-21	LINK, IC (PRF4000) 4A				
		< TRANSISTOR >				
Q601	8-729-032-87	TRANSISTOR 2SC4834NP-F09				
Q602	8-729-032-87	TRANSISTOR 2SC4834NP-F09				
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q604	8-729-200-21	TRANSISTOR 2SC2500-B				
Q605	8-729-173-38	TRANSISTOR 2SA733-K				
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q607	8-729-029-56	TRANSISTOR DTA144ESA				
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q610	8-729-173-38	TRANSISTOR 2SA733-K				
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q612	8-729-173-38	TRANSISTOR 2SA733-K				
Q613	8-729-030-03	TRANSISTOR DTC144ESA				
Q614	8-729-029-56	TRANSISTOR DTA144ESA				
Q615	8-729-200-21	TRANSISTOR 2SC2500-B				
Q616	8-729-030-03	TRANSISTOR DTC144ESA				
Q617	8-729-029-56	TRANSISTOR DTA144ESA				
		< RESISTOR >				
R601	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R602	1-247-891-00	CARBON	330K	5%	1/4W	
R603	1-247-891-00	CARBON	330K	5%	1/4W	
R604	1-216-369-00	METAL OXIDE	1	5%	2W	F
R605	1-247-891-00	CARBON	330K	5%	1/4W	
R606	1-247-891-00	CARBON	330K	5%	1/4W	
R607	1-216-369-00	METAL OXIDE	1	5%	2W	F
R608	1-247-887-00	CARBON	220K	5%	1/4W	
R609	1-249-429-11	CARBON	10K	5%	1/4W	F
R610	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R616	⚠ 1-205-949-11	WIREWOUND	1.8	5%	10W	
R618	⚠ 1-205-949-11	WIREWOUND	1.8	5%	10W	
R619	⚠ 1-244-945-91	CARBON	1M	5%	1/2W	
R620	⚠ 1-218-265-91	METAL	8.2M	5%	1W	
R621	1-249-417-11	CARBON	1K	5%	1/4W	F
R622	1-249-430-11	CARBON	12K	5%	1/4W	
R623	1-249-436-11	CARBON	39K	5%	1/4W	
R624	1-249-425-11	CARBON	4.7K	5%	1/4W	
R625	1-247-815-91	CARBON	220	5%	1/4W	
R626	1-247-863-91	CARBON	22K	5%	1/4W	
R627	1-247-815-91	CARBON	220	5%	1/4W	
R628	1-249-410-11	CARBON	270	5%	1/4W	
R630	1-249-429-11	CARBON	10K	5%	1/4W	
R631	1-215-477-00	METAL	220K	1%	1/4W	
R632	1-249-417-11	CARBON	1K	5%	1/4W	
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-247-895-91	CARBON	470K	5%	1/4W	
R635	1-249-417-11	CARBON	1K	5%	1/4W	
R636	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R637	1-249-389-11	CARBON	4.7	5%	1/4W	F
R638	1-249-425-11	CARBON	4.7K	5%	1/4W	
R639	1-247-791-91	CARBON	22	5%	1/4W	
R640	1-247-791-91	CARBON	22	5%	1/4W	
R641	1-247-791-91	CARBON	22	5%	1/4W	
R642	1-247-791-91	CARBON	22	5%	1/4W	
R644	1-249-425-11	CARBON	4.7K	5%	1/4W	
R645	1-249-415-11	CARBON	680	5%	1/4W	
R646	1-249-403-11	CARBON	68	5%	1/4W	
R651	1-215-880-00	METAL OXIDE	10	5%	2W	F
R652	1-247-891-00	CARBON	330K	5%	1/4W	
R653	1-247-891-00	CARBON	330K	5%	1/4W	
R654	1-247-891-00	CARBON	330K	5%	1/4W	
R655	1-247-891-00	CARBON	330K	5%	1/4W	
R656	1-249-439-11	CARBON	68K	5%	1/4W	
R657	1-249-429-11	CARBON	10K	5%	1/4W	
R658	1-249-421-11	CARBON	2.2K	5%	1/4W	
R659	1-249-425-11	CARBON	4.7K	5%	1/4W	
R660	1-249-429-11	CARBON	10K	5%	1/4W	
R661	1-249-421-11	CARBON	2.2K	5%	1/4W	
R662	1-249-421-11	CARBON	2.2K	5%	1/4W	
R663	1-249-429-11	CARBON	10K	5%	1/4W	
R664	1-249-429-11	CARBON	10K	5%	1/4W	
R665	1-249-425-11	CARBON	4.7K	5%	1/4W	
		< RELAY >				
RY601	⚠ 1-515-720-31	RELAY				
		< TRANSFORMER >				
T601	⚠ 1-429-255-11	TRANSFORMER, CONVERTER (PIT				
T602	⚠ 1-429-254-11	TRANSFORMER, CONVERTER (PRT				

G C

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		< THERMISTOR >				
THP601	⚠ 1-809-827-11	THERMISTOR, POSITIVE				
		< VARISTOR >				
VDR601	1-810-977-21	VARISTOR ERZV10D621				
**						
	*A-1638-070-A	C BOARD, COMPLETE *****************				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		< CAPACITOR >				
C701	1-162-114-00	CERAMIC	0.0047MF		2KV	
C703	1-107-651-11	ELECT	4.7MF	20%	250V	
C709	1-102-978-00	CERAMIC	220PF	5%	50V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-978-00	CERAMIC	220PF	5%	50V	
C713	1-102-980-00	CERAMIC	270PF	5%	50V	
C714	1-102-980-00	CERAMIC	270PF	5%	50V	
C716	1-128-526-11	ELECT	100MF	20%	16V	
C720	1-162-116-00	CERAMIC	680PF	10%	2KV	
		< CONNECTOR >				
CN0003	1-695-915-11	TAB (CONTACT)				
CN0004	1-695-915-11	TAB (CONTACT)				
CN0411	*1-568-882-11	PIN, CONNECTOR 7P				
CN0421	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P				
		< DIODE >				
D701	8-719-991-33	DIODE 1SS133T-77				
D702	8-719-991-33	DIODE 1SS133T-77				
D703	8-719-991-33	DIODE 1SS133T-77				
D704	8-719-991-33	DIODE 1SS133T-77				
D705	8-719-991-33	DIODE 1SS133T-77				
D706	8-719-991-33	DIODE 1SS133T-77				
D707	8-719-991-33	DIODE 1SS133T-77				
D708	8-719-991-33	DIODE 1SS133T-77				
D709	8-719-991-33	DIODE 1SS133T-77				
D714	8-719-109-97	DIODE RD6.8ES-B2				
D715	8-719-018-82	DIODE RGP02-20EL-6394				
		< CRT SOCKET >				
J701	⚠ 1-526-990-22	SOCKET, CRT				
		< COIL >				
L701	1-408-607-31	INDUCTOR	22UH			
L702	1-408-607-31	INDUCTOR	22UH			
L703	1-408-409-00	INDUCTOR	10UH			
L704	1-408-607-31	INDUCTOR	22UH			
L705	1-408-409-00	INDUCTOR	10UH			
L706	1-408-607-31	INDUCTOR	22UH			
L707	1-408-409-00	INDUCTOR	10UH			
L709	1-408-409-00	INDUCTOR	10UH			
		< TRANSISTOR >				
Q701	8-729-326-11	TRANSISTOR 2SC2611				
Q702	8-729-326-11	TRANSISTOR 2SC2611				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
Q705	8-729-326-11	TRANSISTOR 2SC2611				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-200-17	TRANSISTOR 2SA1091-O				
Q709	8-729-200-17	TRANSISTOR 2SA1091-O				
Q710	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q711	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q714	8-729-255-12	TRANSISTOR 2SC2551-O				
Q715	8-729-173-38	TRANSISTOR 2SA733-K				
		< RESISTOR >				
R701	1-202-846-00	SOLID	470K	20%	1/2W	
R702	1-202-838-00	SOLID	100K	20%	1/2W	
R703	1-202-549-00	SOLID	100	20%	1/2W	
R705	1-249-377-11	CARBON	0.47	5%	1/4W	F
R706	1-249-377-11	CARBON	0.47	5%	1/4W	F
R707	1-249-416-11	CARBON	820	5%	1/4W	
R708	1-249-416-11	CARBON	820	5%	1/4W	
R709	1-249-416-11	CARBON	820	5%	1/4W	
R710	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R711	1-202-549-00	SOLID	100	20%	1/2W	
R712	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R713	1-202-549-00	SOLID	100	20%	1/2W	
R714	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R715	1-202-549-00	SOLID	100	20%	1/2W	
R716	1-249-405-11	CARBON	100	5%	1/4W	F
R717	1-249-405-11	CARBON	100	5%	1/4W	F
R718	1-249-405-11	CARBON	100	5%	1/4W	F
R725	1-249-421-11	CARBON	2.2K	5%	1/4W	
R726	1-249-421-11	CARBON	2.2K	5%	1/4W	
R727	1-249-421-11	CARBON	2.2K	5%	1/4W	
R728	1-249-407-11	CARBON	150	5%	1/4W	
R729	1-249-407-11	CARBON	150	5%	1/4W	
R730	1-249-407-11	CARBON	150	5%	1/4W	
R731	1-247-791-91	CARBON	22	5%	1/4W	
R732	1-247-791-91	CARBON	22	5%	1/4W	
R733	1-247-791-91	CARBON	22	5%	1/4W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R738	1-249-401-11	CARBON	47	5%	1/4W	
R739	1-249-401-11	CARBON	47	5%	1/4W	
R740	1-249-401-11	CARBON	47	5%	1/4W	
R743	1-249-435-11	CARBON	33K	5%	1/4W	
R747	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R749	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R751	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R753	1-249-429-11	CARBON	10K	5%	1/4W	
R758	1-247-807-31	CARBON	100	5%	1/4W	
R759	1-247-807-31	CARBON	100	5%	1/4W	
R760	1-247-807-31	CARBON	100	5%	1/4W	
R767	1-249-437-11	CARBON	47K	5%	1/4W	
R768	1-249-417-11	CARBON	1K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-241-714-11	RES, ADJ, METAL FILM 110M				

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1640-236-A	D BOARD, COMPLETE *****************				
	4-200-399-01	SPACER, IC				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		< CAPACITOR >				
C801	1-123-024-21	ELECT	33MF		160V	
C802	1-136-207-11	FILM	0.047MF	10%	250V	
C804	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C805	1-102-030-00	CERAMIC	330PF	10%	500V	
C808	1-162-116-00	CERAMIC	680PF	10%	2KV	
C809	1-162-116-00	CERAMIC	680PF	10%	2KV	
C810	1-106-367-00	MYLAR	0.01MF	10%	400V	
C811	1-115-471-11	FILM	17000PF	3%	1.2KV	
C812	1-129-720-00	FILM	0.033MF	5%	630V	
C813	1-109-961-11	FILM	0.75MF	5%	400V	
C814	1-129-702-00	FILM	0.001MF	10%	400V	
C816	1-109-961-11	FILM	0.75MF	5%	400V	
C817	1-136-759-11	FILM	0.039MF	5%	630V	
C819	1-137-104-11	FILM	0.033MF	10%	250V	
C822	1-126-967-11	ELECT	47MF	20%	50V	
C823	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C824	1-162-117-00	CERAMIC	100PF	10%	500V	
C825	1-126-964-11	ELECT	10MF	20%	50V	
C827	1-102-228-00	CERAMIC	470PF	10%	500V	
C835	1-107-655-11	ELECT	47MF	20%	250V	
C836	1-102-228-00	CERAMIC	470PF	10%	500V	
C837	1-102-228-00	CERAMIC	470PF	10%	500V	
C838	1-102-228-00	CERAMIC	470PF	10%	500V	
C839	1-126-941-11	ELECT	470MF	20%	25V	
C840	1-126-941-11	ELECT	470MF	20%	25V	
C841	1-106-375-12	MYLAR	0.022MF	10%	250V	
C842	1-136-559-11	MYLAR	0.0047MF	10%	400V	
C873	1-162-115-00	CERAMIC	330PF	10%	2KV	
C874	1-164-645-11	CERAMIC	1000PF	10%	500V	
C875	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V	
C892	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C893	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
		< CONNECTOR >				
CN0006	1-695-915-11	TAB (CONTACT)				
CN0009	1-568-878-51	PIN, CONNECTOR 3P				
CN0501	*1-564-516-11	PLUG, CONNECTOR 13P				
CN0503	*1-564-511-11	PLUG, CONNECTOR 8P				
CN0504	*1-564-511-11	PLUG, CONNECTOR 8P				
CN0505	1-764-607-11	CONNECTOR, BOARD TO BOARD 8P				
CN0521	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P				
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P				
		< DIODE >				
D802	8-719-979-99	DIODE ERD08M-15				
D803	8-719-043-14	DIODE ESAD39M-06C				
D804	8-719-971-20	DIODE ERC38-06				
D805	8-719-908-03	DIODE GP08D				
D806	8-719-908-03	DIODE GP08D				
D811	8-719-302-43	DIODE EL1Z				
D812	8-719-510-26	DIODE D1NL20				
D813	8-719-510-26	DIODE D1NL20				
D815	8-719-110-13	DIODE RD9.1ESB2				

REF.NO.	PART NO.	DESCRIPTION				REMARK
D872	8-719-914-43	DIODE DAN202K				
D874	8-719-914-42	DIODE DA204K				
		< FERRITE BEAD >				
FB801	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB802	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
FB803	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH				
		< IC >				
IC801	8-759-103-93	IC µPC393C				
		< COIL >				
L801	1-459-123-00	COIL,DUST CORE(PAC)				
L802	1-459-123-00	COIL,DUST CORE(PAC)				
L803	1-459-123-00	COIL,DUST CORE(PAC)				
L806	1-459-592-11	COIL (WITH CORE) (PMC)				
L811	1-459-104-00	COIL, WITH CORE				
L813	1-459-104-00	COIL, WITH CORE				
L814	1-422-613-11	COIL, AIR CORE				
L815	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH				
L816	1-408-947-00	INDUCTOR	2.2MMH			
		< TRANSISTOR >				
Q801	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q802	8-729-821-07	TRANSISTOR 2SC3997CA				
Q803	8-729-931-45	TRANSISTOR IRF614				
		< RESISTOR >				
JR502	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR503	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR504	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R802	1-215-916-00	METAL OXIDE	680	5%	3W	F
R803	1-215-916-00	METAL OXIDE	680	5%	3W	F
R804	1-215-916-00	METAL OXIDE	680	5%	3W	F
R805	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R806	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R807	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R808	1-216-385-11	METAL OXIDE	0.47	5%	3W	F
R809	1-215-880-00	METAL OXIDE	10	5%	2W	F
R810	1-215-914-11	METAL OXIDE	330	5%	3W	F
R811	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R817	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R818	1-249-377-11	CARBON	0.47	5%	1/4W	F
R819	1-249-377-11	CARBON	0.47	5%	1/4W	F
R820	1-214-907-00	METAL	56K	1%	1/2W	
R821	1-249-428-11	CARBON	8.2K	5%	1/4W	
R823	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R835	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R836	1-216-295-00	CONDUCTOR, CHIP			(2012)	
R837	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R842	1-249-887-11	CARBON	33	5%	1/4W	F
R843	1-202-822-00	SOLID	2.2K	20%	1/2W	
R844	1-249-424-11	CARBON	3.9K	5%	1/4W	
R845	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R851	1-216-374-00	METAL OXIDE	2.7	5%	2W	F
R854	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R855	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R856	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R857	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R858	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

D **VM** **H1**

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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R859	1-202-822-00	SOLID 2.2K 20% 1/2W	
R874	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R895	1-215-866-11	METAL OXIDE 330 5% 1W	F
R896	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R897	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R898	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R899	1-216-103-00	METAL GLAZE 180K 5% 1/10W	

< TRANSFORMER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
T801	1-427-762-11	TRANSFORMER, FERRITE (HDT)	
T803	1-427-776-11	TRANSFORMER, FERRITE (PMT)	
T804	1-426-940-11	HLT	
T805	⚠ 1-453-187-11	TRANSFORMER ASSY, FLYBACK (NX-2661/U2E)	
T806	1-413-059-00	TRANSFORMER, FERRITE (DFT)	

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*A-1644-064-A VM BOARD, COMPLETE
****

*4-368-683-21 SPRING, TRANSISTOR

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1701	1-126-933-11	ELECT 100MF 20% 16V	
C1702	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C1703	1-126-933-11	ELECT 100MF 20% 16V	
C1704	1-126-933-11	ELECT 100MF 20% 16V	
C1705	1-107-638-11	ELECT 33MF 20% 160V	
C1706	1-104-999-11	FILM 0.1MF 5% 200V	
C1707	1-104-989-91	FILM 0.0022MF 5% 200V	
C1708	1-137-364-11	FILM 0.001MF 5% 50V	
C1709	1-137-364-11	FILM 0.001MF 5% 50V	
C1720	1-107-667-11	ELECT 2.2MF 20% 160V	
C1721	1-104-989-91	FILM 0.0022MF 5% 200V	
C1722	1-128-581-11	ELECT 4.7MF 20% 100V	
C1723	1-161-830-00	CERAMIC 0.0047MF 500V	
C1841	1-130-481-00	FILM 0.0068MF 5% 50V	
C1844	1-106-367-00	MYLAR 0.01MF 10% 400V	
C1845	1-106-220-00	MYLAR 0.1MF 10% 100V	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1015	*1-568-881-51	PIN, CONNECTOR 6P	
NA1	1-774-418-11	CONNECTOR, BOARD TO BOARD 8P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1701	8-719-991-33	DIODE 1SS133T-77	
D1702	8-719-110-88	DIODE RD39ES-B2	
D1703	8-719-110-88	DIODE RD39ES-B2	
D1840	8-719-302-43	DIODE EL1Z	
D1841	8-719-991-33	DIODE 1SS133T-77	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1701	1-408-409-00	INDUCTOR 10UH	
L1702	1-408-403-00	INDUCTOR 3.3UH	
L1703	1-408-409-00	INDUCTOR 10UH	
L1841	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE	
L1843	1-459-104-00	COIL, WITH CORE	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1703	8-729-017-05	TRANSISTOR 2SA1837	
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1705	8-729-173-38	TRANSISTOR 2SA733-K	
Q1706	8-729-017-06	TRANSISTOR 2SC4793	
Q1707	8-729-255-12	TRANSISTOR 2SC2551-O	
Q1840	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1841	8-729-017-06	TRANSISTOR 2SC4793	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1701	1-249-417-11	CARBON 1K 5% 1/4W	
R1702	1-249-417-11	CARBON 1K 5% 1/4W	
R1703	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1704	1-249-415-11	CARBON 680 5% 1/4W	
R1705	1-247-791-91	CARBON 22 5% 1/4W	
R1706	1-247-791-91	CARBON 22 5% 1/4W	
R1707	1-247-807-31	CARBON 100 5% 1/4W	
R1708	1-249-410-11	CARBON 270 5% 1/4W	
R1709	1-249-401-11	CARBON 47 5% 1/4W	
R1710	1-249-401-11	CARBON 47 5% 1/4W	
R1711	1-249-429-11	CARBON 10K 5% 1/4W	
R1712	1-260-311-11	CARBON 39 5% 1/2W	
R1713	1-249-384-11	CARBON 1.8 5% 1/4W	F
R1714	1-249-414-11	CARBON 560 5% 1/4W	F
R1715	1-249-432-11	CARBON 18K 5% 1/4W	
R1716	1-249-417-11	CARBON 1K 5% 1/4W	F
R1717	1-216-476-11	METAL OXIDE 180 5% 3W	F
R1718	1-249-432-11	CARBON 18K 5% 1/4W	
R1719	1-249-384-11	CARBON 1.8 5% 1/4W	F
R1720	1-249-400-11	CARBON 39 5% 1/4W	F
R1721	1-249-414-11	CARBON 560 5% 1/4W	
R1722	1-249-401-11	CARBON 47 5% 1/4W	
R1723	1-249-426-11	CARBON 5.6K 5% 1/4W	
R1841	1-249-437-11	CARBON 47K 5% 1/4W	
R1842	1-247-764-11	CARBON 10K 5% 1/2W	
R1843	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1844	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1847	1-249-887-11	CARBON 33 5% 1/4W	F
R1848	1-215-875-11	METAL OXIDE 10K 5% 1W	F
R1849	1-247-764-11	CARBON 10K 5% 1/2W	

****

*A-1646-098-A H1 BOARD, COMPLETE
****

1-568-678-11 TERMINAL BLOCK, S 3P
1-764-606-11 JACK

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C083	1-101-005-00	CERAMIC 0.022MF 50V	
C087	1-101-005-00	CERAMIC 0.022MF 50V	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1113	*1-568-879-11	PIN, CONNECTOR 4P	
CN1123	*1-564-512-11	PLUG, CONNECTOR 9P	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L081	1-408-409-00	INDUCTOR 10UH	
L082	1-408-409-00	INDUCTOR 10UH	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R081	1-249-429-11	CARBON 10K 5%	1/4W
R082	1-249-425-11	CARBON 4.7K 5%	1/4W
R083	1-249-421-11	CARBON 2.2K 5%	1/4W
R084	1-249-419-11	CARBON 1.5K 5%	1/4W
R085	1-249-419-11	CARBON 1.5K 5%	1/4W

< SWITCH >

REF.NO.	PART NO.	DESCRIPTION	REMARK
S081	1-571-532-21	SWITCH, TACTIL	
S082	1-571-532-21	SWITCH, TACTIL	
S083	1-571-532-21	SWITCH, TACTIL	

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*A-1646-099-A H2 BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-374-987-01	GUIDE, LIGHT	
	4-381-686-01	BRACKET (B), LIGHT GUIDE	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1214	*1-564-511-11	PLUG, CONNECTOR 8P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D092	8-719-948-31	DIODE LD-201VR	
	*4-201-076-01	HOLDER, LED ;D092	
D093	8-719-948-31	DIODE LD-201VR	
	*4-201-076-01	HOLDER, LED ;D093	
D094	8-719-948-31	DIODE LD-201VR	
	*4-201-076-01	HOLDER, LED ;D094	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC091	8-741-810-11	ELEMENT,RAY-CATCHER SBX1810-11	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R091	1-249-413-11	CARBON 470 5%	1/4W

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*A-1651-080-A J BOARD, COMPLETE
****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C295	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C296	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C401	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C402	1-126-933-11	ELECT 100MF 20%	16V
C403	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C410	1-126-966-11	ELECT 33MF 20%	50V
C421	1-126-967-11	ELECT 47MF 20%	50V
C422	1-126-967-11	ELECT 47MF 20%	50V
C423	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C424	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C425	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C426	1-126-967-11	ELECT 47MF 20%	16V
C427	1-164-346-11	CERAMIC CHIP 1MF	16V
C428	1-164-346-11	CERAMIC CHIP 1MF	16V
C429	1-104-661-91	ELECT 330MF 20%	16V
C906	1-101-004-00	CERAMIC 0.01MF	50V
C910	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C911	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C912	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C913	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C914	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C915	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C916	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C917	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C922	1-126-967-11	ELECT 47MF 20%	16V
C923	1-164-346-11	CERAMIC CHIP 1MF	16V
C924	1-126-967-11	ELECT 47MF 20%	16V
C925	1-126-967-11	ELECT 47MF 20%	16V
C926	1-164-346-11	CERAMIC CHIP 1MF	16V
C928	1-126-967-11	ELECT 47MF 20%	16V
C929	1-126-967-11	ELECT 47MF 20%	16V
C930	1-126-967-11	ELECT 47MF 20%	16V
C931	1-164-346-11	CERAMIC CHIP 1MF	16V
C932	1-164-346-11	CERAMIC CHIP 1MF	16V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0806	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
CN0807	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P	
CN0823	1-564-524-11	PLUG, CONNECTOR 9P	
CN0824	*1-564-519-11	PLUG, CONNECTOR 4P	
CN0825	*1-564-519-11	PLUG, CONNECTOR 4P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D401	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D403	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D405	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D406	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D407	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D907	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D908	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D909	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D910	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D911	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D913	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D914	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D915	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D916	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D917	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D924	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D925	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D926	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D927	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D928	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D930	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D931	8-719-923-60	DIODE MTZJ-T-77-9.1A	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC401	8-752-068-46	IC CXA1855S	
IC402	8-759-073-00	IC TEA2114	

< SOCKET >

REF.NO.	PART NO.	DESCRIPTION	REMARK
J291	1-537-505-11	TERMINAL BOARD (2P)	
J903	1-561-534-41	SOCKET, PIN 21P	
J905	1-695-293-11	SOCKET 21P	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	

J

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR				
		< RESISTOR >				
JR270	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR272	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR274	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR276	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR278	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR279	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR287	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR297	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR298	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR401	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR402	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR403	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR404	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR405	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR406	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR407	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR408	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR901	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR905	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR907	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR908	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR909	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR910	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR911	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R283	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R284	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R291	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R292	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R401	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R405	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R406	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R407	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R410	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R411	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R412	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R413	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R414	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R416	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R417	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R419	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R420	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R421	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R423	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R424	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R425	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R428	1-249-393-11	CARBON	10	5%	1/4W	F
R429	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R430	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R431	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R432	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R433	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R434	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R435	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R436	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R437	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R438	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R439	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R440	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R911	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R918	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R921	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R922	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R923	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R924	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R925	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R926	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R927	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R928	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R929	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R930	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R931	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R932	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R933	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R934	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R935	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R936	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R937	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R938	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R939	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R940	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
R941	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R942	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R943	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R944	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R945	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R959	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R960	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R968	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R969	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R970	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R977	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	

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The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
⚠	1-406-807-11	COIL, DEGAUSSING	
	1-452-032-00	MAGNET, DISK; 10MM 0	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM 0	
⚠	1-453-1[illegible]-41	TRANSFORMER ASSY, FLYBACK (NX-2601/02F)	
	1-504-507-11	SPEAKER (5CM)	
⚠	1-571-[illegible]-21	SWITCH, PUSH (AC POWER)	
⚠	1-551-[illegible]-11	CORD, POWER (WITH NOISE FILTER)	
		2.5A/250V	
⚠	8-735-[illegible]	[illegible]	59-60
⚠	8-451-406-11	DEFLECTION YOKE (Y29GAC2B)	
⚠	8-453-005-21	NECK ASSY (NA297MB)	
	8-598-361-00	TUNER (BTP-AC402)	
V901 ⚠	8-733-850-05	PICTURE TUBE (SD-[illegible])	

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ACCESSORIES AND PACKING MATERIALS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-042-126-01	CUSHION (UPPER) (ASSY)	
	*4-042-127-11	CUSHION (LOWER) (ASSY)	
	*4-042-128-01	INDIVIDUAL CARTON	
	4-203-406-41	MANUAL, INSTRUCTION (KV-29X2A)(ITALIAN)	
	4-203-406-51	MANUAL, INSTRUCTION (KV-29X2B) (FRENCH/GERMAN/ITALIAN)	
	4-203-406-11	MANUAL, INSTRUCTION (KV-29X2D) (GERMAN/ENGLISH/DUTCH/GREEK)	
	4-203-406-71	MANUAL, INSTRUCTION (KV-29X2E)(SPANISH)	
	4-203-406-81	MANUAL, INSTRUCTION (KV-29X2E) (PORTUGUESE/DANISH/FINNISH/NORWEGIAN/SWEDISH)	
	*4-395-957-01	BAG, PROTECTION	

REMOTE COMMANDER
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-467-272-11	COMMANDER, STANDARD TYPE (RM-831)	
	9-903-466-01	POCKET, COVER (FOR RM-831)	

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